Del Mar Analytical

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

7 of 18 - PCBs

LABORATORY REPORT

Prepared For: IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502

Attention Sally Bilodeau
Project Boeing/Rocketdyne
870071

Sampled: 06/27/00
Received: 06/27/00
Reported: 07/07/00

This laboratory report is confidential and is intended for the sole use of Del Mar Analytical and its client. This entire report was reviewed and approved for release.

CA ELAP Certificate #1197
AZ DHS License #AZ0428

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502
Attention: Sally Bilodeau

Client Project ID: Boeing/Rocketdyne 870071
Report Number: IJF0901

Sampled: 06/27/00
Received: 06/27/00

DATA QUALIFIERS AND DEFINITIONS

Z3 The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

NR Not reported.

RPD Relative Percent Difference

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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000502

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing c/o IT Corp
601 S. Glenoaks Blvd. Ste #314
Burbank, CA 91502

Project/PO Number: 870071

Project Manager: J. McMillan/S. Bilodeau

Phone Number: (818) 841-1100

Sampler: BKE/SWB

Fax Number: (818) 846-9250

Analysis Required: PURB's (8260)

Invoice to Boeing
Results to IT, David Chung (Boeing)

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Special Instructions
CAC-33B	Soil	80z jar	1	6/27/9:42	none	
CAC-34B				955		
CAC-35B				1000		
CAC-36B				1005		
CAC-37B				1010		
CAC-38B				1020		
CAC-39B				1030		
CAC-40B				1035		
CAC-41B				1040		
CAC-42B				1045		
CAC-43B						
CBC-44B				11:10		
CBC-45B				1130		
CBC-46B				1135		

Relinquished By: Brian K. Eyster	Date /Time: 6/27/00 1415	Received by: Rick Meridan	Date /Time: 6-27-00 1415
Relinquished By: Rick Meridan	Date /Time: 6-22-00 1530	Received by:	Date /Time:
Relinquished By:	Date /Time:	Received in Lab by: Cathy	Date /Time: 6-27-00 1530

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ~~X~~
48 hours ✓ 6/27/00 per BE normal ____

Sample Integrity: (Check)
intact X on ice 6 °C

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

Del Mar Analytical
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9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

000503

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing c/o ET Corp
601 S. Glenoaks Blvd. #314
Burbank, CA 91502

Project/PO Number: 670071

Project Manager: J. McMillan/S. Bilotta

Phone Number: (818) 841-1160

Sampler: BKE/SWB

Fax Number: (818) 846-9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: 8260 (BTEX only)	Special Instructions
CBC-47B	soil	8oz jar	1	6/27 1140	none	X	

Relinquished By: Brian K. Eylar Date /Time: 6/27/00 1415
Received By: Rick Sheridan Date /Time: 6-27-00 1415

Relinquished By: Rick Sheridan Date /Time: 6.27.00 1530
Received by: Date /Time:

Relinquished By: Date /Time:
Received in Lab by: Date /Time: 6-27-00 1530

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days X
48 hours ✓ (WILL CALL IF WE WILL BE) normal ____

Sample Integrity: (Check)
intact X on ice 6°C

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

IJF0961

Del Mar Analytical

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14 PCB
14 Hg
25 C10a

LABORATORY REPORT

Prepared For: IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502

Attention Sally Bilodeau
Project Boeing/Rocketdyne
870071

Sampled: 06/28/00
Received: 06/28/00
Reported: 07/10/00

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CA ELAP Certificate #1197
AZ DHS License #AZ0428

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

CASE NARRATIVE

Client: IT Corporation / Emcon
Project: Boeing / Rocketdyne 870071
Lab #: IJF0961

Date Sampled: 6/28/00
Date Received: 6/28/00

Sample Description	Del Mar Lab #	Sample Matrix	Analyses Performed
PC-1 @ 9.5'	IJF0961-01	Soil	EPA 8082, EPA 7471A EPA 300.0 Mod.
PC-2 @ 35.5'	IJF0961-02	Soil	EPA 8082, EPA 7471A EPA 300.0 Mod.
PC-3 @ 68'	IJF0961-03	Soil	EPA 8082, EPA 7471A EPA 300.0 Mod.
PC-4 @ 85.5'	IJF0961-04	Soil	EPA 8082, EPA 7471A EPA 300.0 Mod.
PC-5 @ 103.5'	IJF0961-05	Soil	EPA 300.0 Mod.
PC-6 @ 125'	IJF0961-06	Soil	EPA 8082, EPA 7471A EPA 300.0 Mod.
PC-7 @ 154'	IJF0961-07	Soil	EPA 300.0 Mod.
PC-8 @ 174'	IJF0961-08	Soil	EPA 8082, EPA 7471A EPA 300.0 Mod.
PC-9 @ 200'	IJF0961-09	Soil	EPA 8082, EPA 7471A EPA 300.0 Mod.
PC-10 @ 214'	IJF0961-10	Soil	EPA 8082, EPA 7471A EPA 300.0 Mod.
PC-11 @ 249'	IJF0961-11	Soil	EPA 300.0 Mod.
PC-12 @ 275'	IJF0961-12	Soil	EPA 8082, EPA 7471A EPA 300.0 Mod.
PC-13B @ 300'	IJF0961-13	Soil	EPA 300.0 Mod.
PC-14B @ 325'	IJF0961-14	Soil	EPA 8082, EPA 7471A EPA 300.0 Mod.
PC-13T @ 300'	IJF0961-15	Soil	EPA 300.0 Mod.
PC-14T @ 325'	IJF0961-16	Soil	EPA 8082, EPA 7471A EPA 300.0 Mod.

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2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

CASE NARRATIVE

Client: IT Corporation / Emcon
Project: Boeing / Rocketdyne 870071
Lab #: IJF0961

Date Sampled: 6/28/00
Date Received: 6/28/00

Sample Description	Del Mar Lab #	Sample Matrix	Analyses Performed
PC-15T @ 345'	IJF0961-17	Soil	EPA 300.0 Mod.
PC-15B @ 345'	IJF0961-18	Soil	EPA 300.0 Mod.
PC-16T @ 368'	IJF0961-19	Soil	EPA 8082, EPA 7471A EPA 300.0 Mod.
PC-16B @ 368'	IJF0961-20	Soil	EPA 8082, EPA 7471A EPA 300.0 Mod.
PC-16BD @ 368'	IJF0961-21	Soil	EPA 8082, EPA 7471A EPA 300.0 Mod.
PC-17B @ 395'	IJF0961-22	Soil	EPA 300.0 Mod.
PC-17T @ 395'	IJF0961-23	Soil	EPA 300.0 Mod.
PC-18 @ 425'	IJF0961-24	Soil	EPA 8082, EPA 7471A EPA 300.0 Mod.
PC-19 @ 449'	IJF0961-25	Soil	EPA 300.0 Mod.

SAMPLE RECEIPT: Samples were received intact and with chain of custody numbers 000504 and 000505. The cooler temperature was measured at 4 °C upon receipt at the laboratory.

HOLDING TIMES: All samples were analyzed within holding times.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: Calibration Verification recovery for Aroclor 1016, 1254 and 1260 were above the method control limit for EPA 8082 samples IJF0961-08 and 20. Analytes were not detected in the samples, therefore the data was not impacted.

Aroclor 1016, Aroclor 1260 and the surrogate were below acceptance limits in the MSD for EPA 8082 QC batch I0F3032. The MS/MSD RPD for Aroclor 1016 and 1260 exceeded method control limits. See Corrective Action Report.

OBSERVATIONS: No significant observations were made.

DEL MAR ANALYTICAL

Pat Abe
Project Manager

Del Mar Analytical

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CORRECTIVE ACTION REPORT

Department:	GC	Date:	6/30/00
Method:	EPA 8082	Matrix:	Soil
QC Batch:	I0F3032		

Identification and Definition of Problem:

Aroclor 1016, Aroclor 1260, and the surrogate were below the acceptance limits in the matrix spike duplicate. The RPD was above the acceptance limits for Aroclor 1016 and 1260.

Determination of the Cause

The gas pressure during the reduction process of the matrix spike duplicate affected the Aroclor and surrogate recoveries.

Corrective Action:

The laboratory control sample was within acceptance limits for all target analytes. All samples reported were ND. The matrix spike duplicate was flagged with an 'M2' indicating the low recoveries. The matrix spike duplicate was also flagged with an 'R2' indicating the RPD was above the acceptance limits. The surrogate was flagged with a 'Z1' qualifier indicating the low surrogate recovery.

Quality Assurance Approval: Dedward Date: 7/7/00

WORK ORDER

Due: 07/07/00 12:00

10 Rush

Del Mar Analytical, Irvine

IJF0961

DD/LAMA

Client: IT Corporation/Emcon - Burbank

Project: Boeing/Rocketdyne

Printed: 6/29/00 7:58:24AM

Project Number: 870071

Report To:

IT Corporation/Emcon - Burbank
Sally Bilodeau
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502
Phone: (818) 841-1160
Fax: (818) 846-9280

Invoice To:

Boeing North American, Inc. Rocketdyne Division
Accounts Payable
P.O. Box 7922, 6633 Canoga Avenue M/S: NB16
Canoga Park, CA 91309-7922
Phone :411
Fax: 411

7/10 (7 day)

Project Manager:	Pat Abe	Date Due:	07/07/00 17:00 (6 day TAT)
Received By:	David Dunkley	Date Received:	06/28/00 18:10
Logged In By:	David Dunkley	Date Logged In:	06/28/00 18:26

Samples Received at:	4°C
All containers intact:	Yes
Sample labels/COC agree:	Yes
Samples Preserved Properly:	Yes
Custody Seals Present:	No

Analysis	Due	TAT	Expires	Comments
IJF0961-01 PC-1	**Soil**	**Sampled: 06/28/00 10:03**		**Homogenize before weighing**
8082 - PCBs	07/07/00 12:00	6	07/12/00 10:03	
Mercury-7470/7471	07/07/00 12:00	6	07/26/00 10:03	
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 10:03	
IJF0961-02 PC-2	**Soil**	**Sampled: 06/28/00 10:25**		**Homogenize before weighing**
8082 - PCBs	07/07/00 12:00	6	07/12/00 10:25	
Mercury-7470/7471	07/07/00 12:00	6	07/26/00 10:25	
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 10:25	
IJF0961-03 PC-3	**Soil**	**Sampled: 06/28/00 10:40**		**Homogenize before weighing**
8082 - PCBs	07/07/00 12:00	6	07/12/00 10:40	
Mercury-7470/7471	07/07/00 12:00	6	07/26/00 10:40	
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 10:40	
IJF0961-04 PC-4	**Soil**	**Sampled: 06/28/00 10:50**		**Homogenize before weighing**
8082 - PCBs	07/07/00 12:00	6	07/12/00 10:50	
Mercury-7470/7471	07/07/00 12:00	6	07/26/00 10:50	
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 10:50	
IJF0961-05 PC-5	**Soil**	**Sampled: 06/28/00 11:08**		**Homogenize before weighing**
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 11:08	

FAXED
JUL 1 0 2000
By TR 5:15 PM

WORK ORDER

Due: 07/07/00 12:00

Del Mar Analytical, Irvine

IJF0961

Client: IT Corporation/Emcon - Burbank
Printed: 6/29/00 7:58:24AM
Project: Boeing/Rocketdyne
Project Number: 870071

Analysis	Due	TAT	Expires	Comments
IJF0961-06 PC-6 ✓	**Soil**	**Sampled: 06/28/00 11:15**		**Homogenize before weighing**
8082 - PCBs	07/07/00 12:00	6	07/12/00 11:15	
Mercury-7470/7471	07/07/00 12:00	6	07/26/00 11:15	
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 11:15	
IJF0961-07 PC-7 ✓	**Soil**	**Sampled: 06/28/00 11:20**		**Homogenize before weighing**
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 11:20	
IJF0961-08 PC-8 ✓	**Soil**	**Sampled: 06/28/00 12:30**		**Homogenize before weighing**
8082 - PCBs	07/07/00 12:00	6	07/12/00 12:30	
Mercury-7470/7471	07/07/00 12:00	6	07/26/00 12:30	
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 12:30	
IJF0961-09 PC-9 ✓	**Soil**	**Sampled: 06/28/00 12:40**		**Homogenize before weighing**
8082 - PCBs	07/07/00 12:00	6	07/12/00 12:40	
Mercury-7470/7471	07/07/00 12:00	6	07/26/00 12:40	
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 12:40	
IJF0961-10 PC-10 ✓	**Soil**	**Sampled: 06/28/00 12:45**		**Homogenize before weighing**
8082 - PCBs	07/07/00 12:00	6	07/12/00 12:45	
Mercury-7470/7471	07/07/00 12:00	6	07/26/00 12:45	
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 12:45	
IJF0961-11 PC-11 ✓	**Soil**	**Sampled: 06/28/00 12:55**		**Homogenize before weighing**
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 12:55	
IJF0961-12 PC-12 ✓	**Soil**	**Sampled: 06/28/00 13:00**		**Homogenize before weighing**
8082 - PCBs	07/07/00 12:00	6	07/12/00 13:00	
Mercury-7470/7471	07/07/00 12:00	6	07/26/00 13:00	
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 13:00	
IJF0961-13 PC-13B ✓	**Soil**	**Sampled: 06/28/00 13:10**		**Homogenize before weighing**
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 13:10	
IJF0961-14 PC-14B ✓	**Soil**	**Sampled: 06/28/00 13:15**		**Homogenize before weighing**
8082 - PCBs	07/07/00 12:00	6	07/12/00 13:15	
Mercury-7470/7471	07/07/00 12:00	6	07/26/00 13:15	
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 13:15	
IJF0961-15 PC-13T ✓	**Soil**	**Sampled: 06/28/00 13:37**		**Homogenize before weighing**
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 13:37	

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000504

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing c/o IT Corp. 601 S. Glenoaks Blvd. Suite 314 Burbank, CA 91502

Project/PO Number: 870071

Project Manager: S. Bilodeau / J. McMillan

Phone Number: (818) 841-1160

Sampler: BRE + SWB

Fax Number: (818) 846-9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: PCBs (8082)	total Hg (7470)	Perchlorate						Special Instructions
PC-1	Soil	8oz jar	1	6/28 1003	none	X	X	X						@ 9.5'
PC-2				1025		X	X	X						@ 35.5
PC-3				1040		X	X	X						@ 68
PC-4				1050		X	X	X						@ 85.5
PC-5				1108				X						@ 103.5 Perc only
PC-6				1115		X	X	X						@ 125
PC-7				1120				X						@ 154
PC-8				1230		X	X	X						@ 174
PC-9				12:40		X	X	X						@ 200
PC-10				12:45		X	X	X						@ 214
PC-11				12:55				X						@ 249
PC-12				1:00		X	X	X						@ 275
PC-13B				1:10				X						@ 300
PC-14B				1:15		X	X	X						@ 325

Relinquished By: Brian K. Elliott	Date /Time: 6/28/00 @1636	Received by: Rick Sheridan	Date /Time: 6-28-00 1636
Relinquished By: Rick Sheridan	Date /Time: 6-28-00 1810	Received by:	Date /Time:
Relinquished By:	Date /Time:	Received in Lab by:	Date /Time: 6-28-00 1810

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours X normal X per PA

Sample Integrity: (Check)
intact X on ice 4°C

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

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000505

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing c/o IT Burbank

Project/PO Number:

Project Manager:

Phone Number:

Sampler:

Fax Number:

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	PCBs 8082	Total Hg 7470	Perchlorate							Special Instructions
PC-13T	soil	8oz jar	1	6/28/1337	none			X							@300
PC-14T				1340		X	X	X							@325
PC-15T				1400				X							@345
PC-15B				1405				X							@345
PC-16T				1415		X	X	X							@368
PC-16B				1410		X	X	X							"
PC-16BD				1420		X	X	X							"
PC-17B				1445				X							@395
PC-17T				1440				X							"
PC-18						X	X	X							@425
PC-19								X							@449

Relinquished By: Brian K. Eyler — Date /Time: 6/28/00 @1636 — Received by: Rick Sheridan — Date /Time: 6-28-00 1636

Relinquished By: Rick Sheridan — Date /Time: 6-28-00 1810 — Received by: — Date /Time:

Relinquished By: — Date /Time: — Received in Lab by: — Date /Time: 6-28-00 1810

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours X normal ____

Sample Integrity: (Check)
intact X on ice 4°C

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

CORRECTIVE ACTION REPORT

Department:	GC	Date:	6/30/00
Method:	EPA 8082	Matrix:	Soil
QC Batch:	I0F3032		

Identification and Definition of Problem:

Aroclor 1016, Aroclor 1260, and the surrogate were below the acceptance limits in the matrix spike duplicate. The RPD was above the acceptance limits for Aroclor 1016 and 1260.

Determination of the Cause

The gas pressure during the reduction process of the matrix spike duplicate affected the Aroclor and surrogate recoveries.

Corrective Action:

The laboratory control sample was within acceptance limits for all target analytes. All samples reported were ND. The matrix spike duplicate was flagged with an 'M2' indicating the low recoveries. The matrix spike duplicate was also flagged with an 'R2' indicating the RPD was above the acceptance limits. The surrogate was flagged with a 'Z1' qualifier indicating the low surrogate recovery.

Quality Assurance Approval: Dedgeward Date: 7/7/00

WORK ORDER

Due: 07/07/00 12:00

Del Mar Analytical, Irvine

IJF0961

Client: IT Corporation/Emcon - Burbank
Printed: 6/29/00 7:58:24AM
Project: Boeing/Rocketdyne
Project Number: 870071

Analysis	Due	TAT	Expires	Comments
IJF0961-16 PC-14T ✓	**Soil**	**Sampled: 06/28/00 13:40**		**Homogenize before weighing**
8082 - PCBs	07/07/00 12:00	6	07/12/00 13:40	
Mercury-7470/7471	07/07/00 12:00	6	07/26/00 13:40	
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 13:40	
IJF0961-17 PC-15T ✓	**Soil**	**Sampled: 06/28/00 14:00**		**Homogenize before weighing**
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 14:00	
IJF0961-18 PC-15B ✓	**Soil**	**Sampled: 06/28/00 14:05**		**Homogenize before weighing**
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 14:05	
IJF0961-19 PC-16T ✓	**Soil**	**Sampled: 06/28/00 14:15**		**Homogenize before weighing**
8082 - PCBs	07/07/00 12:00	6	07/12/00 14:15	
Mercury-7470/7471	07/07/00 12:00	6	07/26/00 14:15	
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 14:15	
IJF0961-20 PC-16B ✓	**Soil**	**Sampled: 06/28/00 14:10**		**Homogenize before weighing**
8082 - PCBs	07/07/00 12:00	6	07/12/00 14:10	
Mercury-7470/7471	07/07/00 12:00	6	07/26/00 14:10	
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 14:10	
IJF0961-21 PC-16BD ✓	**Soil**	**Sampled: 06/28/00 14:20**		**Homogenize before weighing**
8082 - PCBs	07/07/00 12:00	6	07/12/00 14:20	
Mercury-7470/7471	07/07/00 12:00	6	07/26/00 14:20	
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 14:20	
IJF0961-22 PC-17B ✓	**Soil**	**Sampled: 06/28/00 14:45**		**Homogenize before weighing**
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 14:45	
IJF0961-23 PC-17T ✓	**Soil**	**Sampled: 06/28/00 14:40**		**Homogenize before weighing**
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 14:40	
IJF0961-24 PC-18 ✓	**Soil**	**Sampled: 06/28/00 16:36**		**Homogenize before weighing**
8082 - PCBs	07/07/00 12:00	6	07/12/00 16:36	
Mercury-7470/7471	07/07/00 12:00	6	07/26/00 16:36	
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 16:36	
IJF0961-25 PC-19 ✓	**Soil**	**Sampled: 06/28/00 16:36**		**Homogenize before weighing**
Perchlorate-300.0mod	07/07/00 12:00	6	07/26/00 16:36	

R. Mish
Reviewed By

6/29/00
Date

Del Mar Analytical

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2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

QA/QC PACKAGE: LEVEL IV
PREPARED FOR IT CORPORATION / EMCON
LABORATORY NUMBER: IJF0961
PROJECT: POEING / ROCKETDYNE 870071

CHAIN OF CUSTODY FORM

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000504

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing c/o IT Corp. 601 S. Glenoaks Blvd. Suite 314 Burbank, CA 91502

Project/PO Number: 870071

Project Manager: S. Bilodeau / J. McMillan

Phone Number: (818) 841-1160

Sampler: BKE + SWB

Fax Number: (818) 846-9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	PCBs (8082)	total Hg (7471)	Perchlorate							Special Instructions
PC-1	Soil	8oz-jar	1	6/28 1003	none	X	X	X							@ 9.5'
PC-2				1025		X	X	X							@ 35.5
PC-3				1040		X	X	X							@ 68
PC-4				1050		X	X	X							@ 85.5
PC-5				1108				X							@ 103.5 Perc only
PC-6				1115		X	X	X							@ 125
PC-7				1120				X							@ 154
PC-8				1230		X	X	X							@ 174
PC-9				12:40		X	X	X							@ 200
PC-10				12:45		X	X	X							@ 214
PC-11				12:55				X							@ 249
PC-12				1:00		X	X	X							@ 275
PC-13B				1:10				X							@ 300
PC-14B				1:15		X	X	X							@ 325

Relinquished By: Brian K. Eltgroth Date /Time: 6/28/00 @ 1636

Received by: Rick Sheridan Date /Time: 6-28-00 1636

Relinquished By: Rick Sheridan Date /Time: 6-28-00 1810

Received by: Date /Time:

Relinquished By: Date /Time:

Received in Lab by: Date /Time: 6-28-00 1810

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours X normal X per PA

Sample Integrity: (Check)
intact X on ice 4° C

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due in 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard,.Suite 314
Burbank, CA 91502
Attention: Sally Bilodeau

Client Project ID: Boeing/Rocketdyne 870071
Report Number: IJF0961

Sampled: 06/28/00
Received: 06/28/00

DATA QUALIFIERS AND DEFINITIONS

C	Calibration Verification recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.
M2	Matrix Spike recovery was outside the method control limits. See Corrective Action Report.
R2	The RPD exceeded the method control limit. See Corrective Action Report.
Z1	Surrogate recovery was outside acceptance limits. See Corrective Action Report.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
NR	Not reported.
RPD	Relative Percent Difference

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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CASE NARRATIVE

QUANTERRA INCORPORATED PROJECT NUMBER G0F300201

SOLID, 8290, Dioxins/Furans, RUSH TAT

Sample "PC-20" had some internal standard recoveries lower than the method recommended goal of 40%. Generally, data quality is not considered affected if internal standard signal-to-noise is greater than 10:1, which is achieved for all internal standards in all samples.

There were no other anomalies associated with this project.

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000509

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing % IT Corp.
601 S. Glenoaks Blvd. #314
Burbank, CA 91502

Project/PO Number: 870071

Project Manager: John McMillan/Sally Bilodeau

Phone Number: (818)841-1160

Sampler: BRE/SWB

Fax Number: (818)846-9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: Dioxins (8290)	Special Instructions
PC-1	Soil	4oz jar	1	6/28/00/1003	none	X	* Pls. mix each sample *
PC-2				1025			* to homogenize prior *
PC-3				1040			* to analysis *
PC-4				1050			
PC-6				1115			
PC-8				1230			
PC-9				1240			
PC-10				1245			
PC-12				1300			
PC-14B				1315			
PC-16T				1415			
PC-16B				1410			
PC-14T				1340			
PC-16BD				1420			

* Invoice goes to Boeing - Results go to IT AND David Chung @ Boeing: fax # (818) 586-5889

Relinquished By:	Date /Time:	Received by:	Date /Time:
Brian K. Eyster	6/29/00 @ 1600		
Relinquished By:	Date /Time:	Received by:	Date /Time:
Relinquished By:	Date /Time:	Received in Lab by:	Date /Time:
			6-30-00 1030

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____ as discussed
48 hours ____ normal X on 6/28/00 (by 7/13/00)

Sample Integrity: (Check)
intact ____ on ice ____

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

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000510

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing c/o IT Corp.
601 S. Glenoaks Blvd. #314
Burbank, CA 91502

Project/PO Number: 870071

Project Manager: J. McMillan/S. Bilodeau

Phone Number: (818)841-1160

Sampler: BKE

Fax Number: (818)846-9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: Dioxins (8290)								
PC-18	Soil	40z jar	1	6/28/00 1450	none	X								
PC-20				6/29/00 830		X								
PC-21				835		X								
PC-22				830		X								

Invoice to Boeing
Results go to IT and to David Chung @ Boeing fax # (818) 586-5889

Special Instructions

Please mix sample to homogenize prior to analysis

Relinquished By:	Date /Time:	Received by:	Date /Time:
Brian K. Eylott	6/29/00 @ 1600		
Relinquished By:	Date /Time:	Received by:	Date /Time:
Relinquished By:	Date /Time:	Received in Lab by:	Date /Time:
			6-30-00 1030

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X as discussed, by 7/13/00

Sample Integrity: (Check)
intact ____ on ice ____

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CHAIN OF CUSTODY FORM

000505

Client Name/Address: Boeing c/o IT Burbank	Project/PO Number:
Project Manager:	Phone Number:
Sampler:	Fax Number:

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	RCRA 8082	Title 22 Metals 7470	Perchlorate							Special Instructions
PC-13T	soil	8oz jar	1	6/28/1337	none			X							@300
PC-14T				1340		X	X	X							@385
PC-15T				1400				X							@345
PC-15B				1405				X							@345
PC-16T				1415		X	X	X							@368
PC-16B				1410		X	X	X							"
PC-16BD				1420		X	X	X							"
PC-17B				1445				X							@395
PC-17T				1440				X							"
PC-18						X	X	X							@425
PC-19								X							@449

Relinquished By:	Date /Time:	Received by:	Date /Time:
Brian E. Elliott	6/28/00 @1636	Kirk Sheridan	6-28-00 1636
Relinquished By: Kirk Sheridan	Date /Time: 6-28-00 1810	Received by:	Date /Time:
Relinquished By:	Date /Time:	Received in Lab by:	Date /Time: 6-28-00 1810

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours X normal ____

Sample Integrity: (Check)
intact X on ice 4°C

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due 30 in 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

IJF1026

Del Mar Analytical

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3-PCB
3-HS
3-CLO4

LABORATORY REPORT

Prepared For: IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502

Attention Sally Bilodeau
Project Boeing/Rocketdyne
870071

Sampled: 06/29/00
Received: 06/29/00
Reported: 07/11/00

This laboratory report is confidential and is intended for the sole use of Del Mar Analytical and its client. This entire report was reviewed and approved for release.

CA ELAP Certificate #1197
AZ DHS License #AZ0428

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502
Attention: Sally Bilodeau

Client Project ID: Boeing/Rocketdyne 870071
Report Number: IJF1026

Sampled: 06/29/00
Received: 06/29/00

DATA QUALIFIERS AND DEFINITIONS

M2	Matrix Spike recovery was outside the method control limits. See Corrective Action Report.
R2	The RPD exceeded the method control limit. See Corrective Action Report.
Z1	Surrogate recovery was outside acceptance limits. See Corrective Action Report.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
NR	Not reported.
RPD	Relative Percent Difference

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

CORRECTIVE ACTION REPORT

Department:	GC	Date:	6/30/00
Method:	EPA 8082	Matrix:	Soil
QC Batch:	I0F3032		

Identification and Definition of Problem:

Aroclor 1016, Aroclor 1260, and the surrogate were below the acceptance limits in the matrix spike duplicate. The RPD was above the acceptance limits for Aroclor 1016 and 1260.

Determination of the Cause

The gas pressure during the reduction process of the matrix spike duplicate affected the Aroclor and surrogate recoveries.

Corrective Action:

The laboratory control sample was within acceptance limits for all target analytes. All samples reported were ND. The matrix spike duplicate was flagged with an 'M2' indicating the low recoveries. The matrix spike duplicate was also flagged with an 'R2' indicating the RPD was above the acceptance limits. The surrogate was flagged with a 'Z1' qualifier indicating the low surrogate recovery.

Quality Assurance Approval: Kay Ward Date: 7/7/00

Del Mar Analytical
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000521

CHAIN OF CUSTODY FORM

Page 1 of _____

Client Name/Address: Boeing c/o IT Corp.
601 S. Glenoaks Blvd. Suite 314
Burbank, CA 91502

Project/PO Number: 870071

Project Manager: J. McMillan/S. Bilodeau

Phone Number: (818) 841-1160

Sampler: BRE

Fax Number: (818) 846-9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: PCBs (8082)	Total Hg (7470)	Perchlorate	Special Instructions
PC-20	Soil	9 oz. jar	1	6/29 0830	none	X	X	X	@ 475'
PC-21				0835		X	X	X	@ 500'
PC-22		↓		0830		X	X	X	@ 525'
RF890ML-1A		3" rings		1155			X		
-1B				1200			X		
-1C				1205			X		
-2A				1210			X		
-2B				1215			X		
-2C				1220			X		
-3A				1225			X		
-3B				1230			X		
-3C	↓	↓	↓	1235	↓		X		

Relinquished By: Brian K. Gilchrist Date/Time: 6/29/00 @ 1438
Received by: Jesse Ruiz Date/Time: 6/29/0 1438

Relinquished By: Jesse Ruiz Date/Time: 6/29/00 1815
Received by: Date/Time:

Relinquished By: Date/Time:
Received in Lab by: Laura Morgan Date/Time: 6/29/00 1815

Turnaround Time: (Check)
same day _____ 72 hours _____
24 hours _____ 5 days _____
48 hours X (Aq only) normal X (full suite)

Sample Integrity: (Check)
intact X on ice 3°

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

CASE NARRATIVE

QUANTERRA INCORPORATED PROJECT NUMBER G0F300201

SOLID, 8290, Dioxins/Furans, RUSH TAT

Sample "PC-20" had some internal standard recoveries lower than the method recommended goal of 40%. Generally, data quality is not considered affected if internal standard signal-to-noise is greater than 10:1, which is achieved for all internal standards in all samples.

There were no other anomalies associated with this project.

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9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

000509

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing c/o IT Corp
601 S. Glenoaks Blvd. #314
Burbank, CA 91502

Project/PO Number: 870071

Project Manager: John McMillan/Sally Bilodeau

Phone Number: (818)841-1160

Sampler: BRE/SWB

Fax Number: (818)846-9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: Dioxins (8290)	Special Instructions
PC-1	Soil	4oz jar	1	6/28/00/1003	none	X	
PC-2				1025			
PC-3				1040			
PC-4				1050			
PC-6				1115			
PC-8				1230			
PC-9				1240			
PC-10				1245			
PC-12				1300			
PC-14B				1315			
PC-16T				1415			
PC-16B				1410			
PC-14T				1340			
PC-16BD				1420			

* Invoice goes to Boeing - Results go to IT AND David Chung @ Boeing: fax # (818) 586-5889

* Pls. mix each sample * to homogenize prior * to analysis *

Relinquished By:	Date /Time:	Received by:	Date /Time:
Brian K. Eyster	6/29/00 @ 1600		
Relinquished By:	Date /Time:	Received by:	Date /Time:
Relinquished By:	Date /Time:	Received in Lab by:	Date /Time:
			6-30-00 1030

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____ as discussed
48 hours ____ normal X on 6/28/00 (by 7/13/00)

Sample Integrity: (Check)
intact ____ on ice ____

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

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9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

000510

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing c/o IT Corp.
601 S. Glenoaks Blvd. #314
Burbank, CA 91502

Project/PO Number: 870071

Project Manager: J. McMillan/S. Bilodeau

Phone Number: (818)841-1160

Sampler: BKE

Fax Number: (818)846-9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Dioxins (8280)	Special Instructions
PC-18	Soil	4oz jar	1	6/28/00 1450	none	X	Please mix
PC-20				6/29/00 830		X	sample to homogenize
PC-21				835		X	prior to analysis
PC-22				830		X	

Invoice to Boeing
Results go to IT and to David Chung @ Boeing fax # (818) 586-5585

Relinquished By: Brian K. Eylott Date/Time: 6/29/00 @ 1600

Received by: Date/Time:

Relinquished By: Date/Time:

Received by: Date/Time:

Relinquished By: Date/Time:

Received in Lab by: Date/Time: 6-30-00 1030

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X as discussed by 7/13/00

Sample Integrity: (Check)
intact ____ on ice ____

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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Del Mar Analytical

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY REPORT

Prepared For: IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502

Attention Sally Bilodeau
Project Boeing/Rocketdyne
870071

Sampled: 07/10/00
Received: 07/10/00
Reported: 07/18/00

This laboratory report is confidential and is intended for the sole use of Del Mar Analytical and its client. This entire report was reviewed and approved for release.

CA ELAP Certificate #1197
AZ DHS License #AZ0428

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502
Attention: Sally Bilodeau

Client Project ID: Boeing/Rocketdyne 870071
Report Number: IJG0192

Sampled: 07/10/00
Received: 07/10/00

DATA QUALIFIERS AND DEFINITIONS

M-NR No results were reported for the MS/MSD. The sample used for the MS/MSD required dilution due to the sample matrix. Because of this, the spike compounds were diluted below the detection limit.

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

NR Not reported.

RPD Relative Percent Difference

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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000514

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing % IT
601 S. Glenoaks Blvd. #314
Burbank, CA 91502

Project/PO Number: 870071

Project Manager: J. McMillan

Phone Number: (818) 841-1160

Sampler: BKE

Fax Number: (818) 846-9280

Analysis Required

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	PCBs (8082)	Perchlorate	total Hg (7470)							Special Instructions
CBC-48S	soil	8oz	1	7/10/1240	none	X	X	X							
CBC-49S			1	1220		X	X	X							
CBC-50S			1	1230		X	X	X							
CBC-52SW			2 BKE	1250		X	X	X							
CBC-54SW			2 BKE	1255		X	X	X							
CBC-56SW			2 BKE	1310		X	X	X							
CBC-57SW			2 BKE	1315		X	X	X							

Relinquished By: Brian K. Eyotoo Date /Time: 7/10/00 @1625 Received by: Jasa Ruiz Date /Time: 7/10/00 1625

Relinquished By: Jasa Ruiz Date /Time: 7/10/00 1750 Received by: Date /Time:

Relinquished By: Date /Time: Received in Lab by: Date /Time: 7/10/08 17:50

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice 3°

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

Del Mar Analytical

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2890 South 52nd St., Suite B-100, Phoenix, AZ 85044 (602) 438-0883 FAX (602) 438-0851
9484 Chesapeake Dr., Suite 806, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

000512

CHAIN OF CUSTODY FORM

Page 1 of 1

Client Name/Address: Boeing c/o IT
601 S. Glenoaks Blvd. Suite 314
Burbank, CA 91502

Project/PO Number: 070071

Project Manager: J. McMillan/S. Blackman

Phone Number: (626) 841-1160

Sampler: BKE/SWB

Fax Number: (818) 846-9260

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	PCBs (8082)	Total Hg (7470)	Perchlorate		Special Instructions
CBC-51	Soil	8 oz Jar	1	6/7/00 0930	none	X	X	X	DISCARD	Forward to Boeing Results to IT and Boeing (David Chesney)
CBC-52			1	0950		X	X	X	DISCARD	* Re-mix MIV samples to homogenize prior to analysis *
CBC-53			1	1010		X	X	X	ADD "S"	
CBC-54			1	1020		X	X	X	DISCARD	
CBC-55			1	1025		X	X	X	ADD "S"	
CBC-56			1	1030		X	X	X	DISCARD	
CBC-57			1	1040		X	X	X	DISCARD	
CBC-58			1	1045		X	X	X	ADD "SW"	

Relinquished By: Brian K. Eglehart Date/Time: 7/6/00 @ 14:00
Received by: Date/Time: 7-6-00 1600

Relinquished By: Date/Time:
Received by: Date/Time:

Relinquished By: Date/Time:
Received in Lab by: Date/Time:

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
Intact ✓ on Ice ✓

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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000512

CHAIN OF CUSTODY FORM

Page 1 of 1

Client Name/Address: Boeing c/o IT
601 S. Glenoaks Blvd. Suite 314
Burbank, CA 91502

Project/PO Number: 870071

Project Manager: J. McMillan/S. Bilodeau

Phone Number: (818) 841-1160

Sampler: BKE/SWB

Fax Number: (818) 846-9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	PCBs (8082)	Total Hg (7470)	Perchlorate	Special Instructions
CBC-51	Soil	8 oz jar	1	6/6 0930	none	X	X	X	Invoice to Boeing Results to IT and Boeing (David Chung)
CBC-52	↓	↓	1	0950	↓	X	X	X	*Please mix samples to homogenize prior to analysis*
CBC-53	↓	↓	1	1010	↓	X	X	X	↓
CBC-54	↓	↓	1	1020	↓	X	X	X	↓
CBC-55	↓	↓	1	1025	↓	X	X	X	↓
CBC-56	↓	↓	1	1030	↓	X	X	X	↓
CBC-57	↓	↓	1	1040	↓	X	X	X	↓
CBC-58	↓	↓	1	1045	↓	X	X	X	↓

Relinquished By:	Date /Time:	Received by:	Date /Time:
K. Eytcheson	7/6/00 @ 14:00		7-6-00 1400
	7-6-00 3:55P		7/6/00 1555
	7/6/00 1815		7/6/00 1815

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact ✓ on ice ✓ 4°C

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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JUL-11-2000 14:27 DEL MAR ANALYTICAL 949 261 1228 P.03

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000514

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing % IT
601 S. Glenoaks Blvd. #314
Burbank, CA 91502

Project/PO Number: 870071

Project Manager: J. McMillan

Phone Number: (818) 841-1160

Sampler: BKE

Fax Number: (818) 846-9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: PCBs (8082)	Perchlorate	total Hg (7470)	Special Instructions
CBC-48S	Soil	9oz	1	7/10/1210	none	X	X	X	
CBC-49S			1	1220		X	X	X	
CBC-50S			1	1230		X	X	X	
CBC-52SW			2 BKE	1250		X	X	X	
CBC-54SW			2 BKE	1255		X	X	X	
CBC-56SW			2 BKE	1310		X	X	X	
CBC-57SW			2 BKE	1315		X	X	X	

Relinquished By: Brian R. Eyolfson	Date /Time: 7/10/00 @ 1625	Received by: Jasa Knight	Date /Time: 7/10/00 1625
Relinquished By: Jasa Knight	Date /Time: 7/10/00 1750	Received by:	Date /Time:
Relinquished By:	Date /Time:	Received in Lab by:	Date /Time: 7/10/00 17:50

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice 3°

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

CASE NARRATIVE

Analysis of Samples for the Presence of

Polychlorinated Dibenzo-*p*-Dioxins and Dibenzofurans by

High-Resolution Chromatography / High-Resolution Mass Spectrometry

Method 8290 Rev. 0 (9/94)

Date:	July 16, 2000
Client ID:	Del Mar Analytical
P.O. Number:	870071/IJG0194
TLI Project Number:	51383

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Rev. 11/19/97

Overview

The samples and associated QC samples were extracted and analyzed according to procedures described in EPA Method 8290 Rev. 0 (9/94). Any particular difficulties encountered during the sample handling by Triangle Laboratories will be discussed in the QC Remarks section below. This report contains results from only the 8290 dioxin/furan analyses of the soil samples.

Quality Control Samples

A laboratory method blank, identified as the TLI Blank, was prepared along with the samples.

Quality Control Remarks

This release of this particular set of Del Mar Analytical analytical data by Triangle Laboratories was authorized by the Quality Control Chemist who has reviewed each sample data package following a series of inspections/reviews. When applicable, general deviations from acceptable QC requirements are identified below and comments are made on the effect of these deviations upon the validity and reliability of the results. Specific QC issues associated with this particular project are:

Sample receipt: Ten soil samples were received from Del Mar Analytical at 5.0 °C in good condition on July 11, 2000 and stored in a refrigerator at 4 °C. The sample containers for the samples CBC-50S, CBC-55S and CBC-56SW arrive broken. Samples were stored in the plastic bags for analyses.

Sample Preparation Laboratory: None

Mass Spectrometry: None

Data Review: The percent recoveries of 2378-TCDD, 12378-PeCDF, and 23478-PeCDF analytes in the LCSD analysis are slightly above the QC criteria (70-130%). However, the relative percent differences are well within the QC criteria (< 20%). Results for these analytes may be over-estimated in the field samples. However, no associated analytes are detected in the field samples above the target detection limits, the results of the field samples are not significantly affected.

Other Comments: No 2,3,7,8-substituted target analytes were detected in the method blank above the target detection limit (TDL).

The analytical data presented in this report are consistent with the guidelines of EPA Method 8290 Rev. 0 (9/94). Any exceptions have been discussed in the QC Remarks section of this case narrative with emphasis on their effect on the data. Should Del Mar Analytical have any questions or comments regarding this data package, please feel free to contact a Project Scientist, at 919/544-5729.

For Triangle Laboratories, Inc.,

Released by,

Dina Zinicola
Report Preparation Chemist

The total number of pages in the data package is : 348 .

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000515

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing C/O IT
8601 S. Glenoaks Blvd. #314
Burbank, CA 91502

Project/PO Number: 870071

Project Manager: J. McMillan

Phone Number: (818) 841-1160

Sampler: BKE

Fax Number: (818) 846-9280

Analysis Required: VOCs (8260)

Special Instructions: Invoice to Boeing, Results to IT and David Chung (Boeing) Phone (818) 586-4347.

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Special Instructions
CBC-485	Soil	4oz	1	7/6/00/0905	none	* Please mix each sample prior to analysis *
-495			1	7/6/00/0910		
-505			1	7/6/00/0915		
-52SW		4oz	1	7/10/00/1250		
-535		9oz	1	7/6/00/1010		
-54SW		4oz	1	7/10/00/1255		
-555		9oz	1	7/6/00/1025		
-56SW		4oz	1	7/10/00/1300		
-575W		4oz	1	7/10/00/1315		
-585W		9oz	1	7/6/00/1045		

Relinquished By: Brian K. Eglotte — Date/Time: 7/10/00 1658

Received by: — Date/Time:

Relinquished By: — Date/Time:

Received by: — Date/Time:

Relinquished By: — Date/Time:

Received in Lab by: — Date/Time: 7/11/00 0930

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal ____

Sample Integrity: (Check)
intact ____ on ice ____

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

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000515

CHAIN OF CUSTODY FORM

Page 1 of 1

Client Name/Address: Boeing c/o IT 8601 S. Glenoaks Blvd. #314 Burbank, CA 91502	Project/PO Number: 870071	Analysis Required
Project Manager: J. McMillan	Phone Number: (818)841-7160	
Sampler: BFE	Fax Number: (818)846-9280	

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	TPH as Mixture (8328)	Invoice to Boeing, results to IT and David Chung (Boeing) (818) 586-4347 Special Instructions
CBC - 48 S	soil	4oz	1	7/6/00/0905	none	X	* Please mix each sample prior to analysis *
- 49 S			1	7/6/00/0910		X	
- 50 S			1	7/6/00/0915		X	
- 52 SW		4oz	1	7/6/00/1250		X	
- 53 S		9oz	1	7/6/00/1010		X	
- 54 SW		4oz	1	7/6/00/1255		X	
- 55 S		9oz	1	7/6/00/1025		X	
- 56 SW		4oz	1	7/6/00/1340		X	
- 57 SW		4oz	1	7/6/00/1315		X	
- 58 SW		9oz	1	7/6/00/1045		X	

Relinquished By:	Date /Time:	Received by:	Date /Time:	Turnaround Time: (Check)	
Darren R Egtoto	7/10/00 @ 1658			same day ____	72 hours ____
Relinquished By:	Date /Time:	Received by:	Date /Time:	24 hours ____	5 days ____
				48 hours ____	normal ____
Relinquished By:	Date /Time:	Received in Lab by:	Date /Time:	Sample Integrity: (Check)	
				intact ____	on ice ____

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

EMCON BURBANK ; 7-10- 0 ; 5:42PM ; SENT BY:818 846-9280 ; 7142611228;# 2/ 3

IJG0225

Del Mar Analytical

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7 PCB

LABORATORY REPORT

Prepared For: IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502

Attention Sally Bilodeau
Project Boeing/Rocketdyne
870071

Sampled: 07/11/00
Received: 07/11/00
Reported: 07/13/00

This laboratory report is confidential and is intended for the sole use of Del Mar Analytical and its client. This entire report was reviewed and approved for release.

CA ELAP Certificate #1197
AZ DHS License #AZ0428

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502
Attention: Sally Bilodeau

Client Project ID: Boeing/Rocketdyne 870071
Report Number: IJG0225

Sampled: 07/11/00
Received: 07/11/00

DATA QUALIFIERS AND DEFINITIONS

M-HA Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).

Z3 The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

NR Not reported.

RPD Relative Percent Difference

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-085

ADDITIONAL ANALYSIS REQUEST FORM

Today's Date: 7/19/00 Del Mar Analytical Project Manager: Pat

Request via: ✓ telephone ____ chain of custody form ____ fax transmission ____ E-mail ____ other

Client: IT Corp/Emcon Contact: Sally Bibodeau

Project: Boeing Rocketdyne 870071

Date Sampled: 7/11 Date Received: 7/11

Status: ____ in progress ____ completed ____ received today ____ received yesterday ✓ on hold ____ other

SAMPLE NUMBER	SAMPLE DESCRIPTION	ANALYSIS REQUESTED	SPECIAL REQUIREMENTS
CAC-64B@9"		8082-PCBs	
Add-on to Work Order IJG0225			

TURNAROUND STATUS: ____ Same Day ____ 24hr ✓ 48hr ____ 3days

____ 5days ____ Standard ____ No Rush Charge

Del Mar Analytical

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16525 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0

ADDITIONAL ANALYSIS REQUEST FORM

Today's Date: 7/18/00 Del Mar Analytical Project Manager: Pat

Request via: ✓ telephone ____ chain of custody form ____ fax transmission ____ E-mail ____ other

Client: IT Corp./Emcon Contact: Sally Bilodeau

Project: Boeing/Rocketdyne / 870071

Date Sampled: 7/11 Date Received: 7/11

Status: ____ in progress ✓ completed ____ received today ____ received yesterday ✓ on hold ____ other

SAMPLE NUMBER	SAMPLE DESCRIPTION	ANALYSIS REQUESTED	SPECIAL REQUIREMENTS
CAC-62B@6"		8082-PCBs	
CAC-63B@6"		↓	
CAC-64B@6"			

Add-on to Work Order IJG0225

TURNAROUND STATUS: ____ Same Day ____ 24hr ✓ 48hr ____ 3days

____ 5days ____ Standard ____ No Rush Charge

Del Mar Analytical
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9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

000516

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing c/o IT, 601 S. Glenoaks Blvd., Suite 314, Burbank, CA 91502

Project/PO Number: 870071

Project Manager: J. McMillan

Phone Number: (818) 841-1160

Sampler: BKE

Fax Number: (818) 846-9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	PCBs (8082)	Analysis Required	Special Instructions
CAC-59B@3"	Soil	4oz	1	7/11/00 0930	none	X		Invoice to Boeing, Results to IT and Boeing
CAC-60B			1	1000				*Please hold all 6" and 9" samples
CAC-61B			1	1015				
CAC-59B@6"			1	0935			HOLD	
CAC-62B@3"			1	1030				
CAC-62B@6"			1	1038			HOLD	
CAC-63B@3"			1	1110				
CAC-63B@6"			1	1115			HOLD	
~~CAC-63B@9"~~			1					
CAC-64B@3"			1	1120				
CAC-64B@6"			1	1125			HOLD	
CAC-64B@9"			1	1130			HOLD	
CAC-65B@3"			1	1140				
CAC-65B@6"			1	1145			HOLD	

Relinquished By: Brian K. Eylar — Date/Time: 7/11/00 @ 1610

Received by: Rick Sheridan — Date/Time: 7-11-00 1610

Relinquished By: Rick Sheridan — Date/Time: 7-11-00 1750

Received by: — Date/Time:

Relinquished By: — Date/Time:

Received in Lab by: — Date/Time: 7/11/00 17:50

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours X normal ____

Sample Integrity: (Check)
intact X on ice 2°

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

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000517

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing c/o IT
601 S. Glenoaks Blvd. Suite 314
Burbank, CA 91502

Project/PO Number: 870071

Project Manager: J. McMillan

Phone Number: (818) 841-1160

Sampler: BKE

Fax Number: (818) 846-9280

Analysis Required

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	PCBs (8082)									Special Instructions
CAC-65B@9"	Soil	4oz	1	7/11/00 1150	none	X	HOLD								Invoice to Boeing Results to Boeing AND IT. * Hold all 6" and 9" samples, please *
~~CAC-66B@3"~~															
~~CAC-66B@6"~~															
~~CAC-66B@9"~~															
CAC-67B@3"				1205		X									
CAC-67B@6"				1210		X	HOLD								
CAC-67B@9"				1215		X	HOLD								
CAC-68B@3"				1218		X									
CAC-68B@6"				1220		X	HOLD								
CAC-68B@9"				1225		X	HOLD								

Relinquished By:	Date /Time:	Received by:	Date /Time:
Brian K. Ettaher	7/11/00 @ 1610	Rick Sheridan	7-11-00 1610
Rick Sheridan	7-11-00 1750	Received by:	Date /Time:
Relinquished By:	Date /Time:	Received in Lab by:	Date /Time: 7/11/00 17:50

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours X normal ____

Sample Integrity: (Check)
intact X on ice 2°

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

IJG0597

Del Mar Analytical

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68 PCB

LABORATORY REPORT

Prepared For: IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502

Attention Sally Bilodeau
Project Boeing/Rocketdyne
870071

Sampled: 07/21/00
Received: 07/21/00
Reported: 07/26/00

This laboratory report is confidential and is intended for the sole use of Del Mar Analytical and its client. This entire report was reviewed and approved for release.

CA ELAP Certificate #1197
AZ DHS License #AZ0428

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502
Attention: Sally Bilodeau

Client Project ID: Boeing/Rocketdyne 870071
Report Number: IJG0597

Sampled: 07/21/00
Received: 07/21/00

DATA QUALIFIERS AND DEFINITIONS

H	Sample analysis performed past method-specified holding time.
M	The MS and/or MSD were outside of the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
R	The RPD exceeded the method control limit due to sample matrix effects. The individual analyte QA/QC recoveries, however, were within acceptance limits.
Z1	Surrogate recovery was outside acceptance limits. See Corrective Action Report.
Z3	The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
NR	Not reported.
RPD	Relative Percent Difference

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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CORRECTIVE ACTION REPORT

Department:	GC	Date:	8/7/00
Method:	EPA 8082	Matrix:	Soil
QC Batch:	I0H0743		

Identification and Definition of Problem:

Sample IJG0597-23 was re-extracted past the method holding time for sample extraction.

Determination of the Cause

The original extraction and analysis of sample IJG0597-23 was within the method holding time, however due to the surrogate recovery below the acceptance limits, re-extraction was required. The difference in both the surrogate and Aroclor 1254 results between the two extractions indicate that a portion of the original extract may have been spilled during the final steps of the extraction process.

Corrective Action:

Both results were reported. The original result was reported with a qualifier to indicate poor surrogate recovery. The re-extraction of sample IJG0597-23 was reported with an 'H' qualifier to indicate the extraction was performed after the holding time. Due to the stability of Aroclors, the analysis past the holding time should not have a significant impact on the data.

Quality Assurance Approval: _____ Date: 8/10/00

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ADDITIONAL ANALYSIS REQUEST FORM

Today's Date: 8/2/00 Del Mar Analytical Project Manager: Pat

Request via: ✓ telephone ✓ chain of custody form ___ fax transmission ___ E-mail ___ other

Client: IT Corp. Contact: Sally Bilodeau

Project: Boeing/Rocketdyne 870071

Date Sampled: 7/21 Date Received: 7/21

Status: ___ in progress ___ completed ___ received today ___ received yesterday ✓ on hold ___ other

SAMPLE NUMBER	SAMPLE DESCRIPTION	ANALYSIS REQUESTED	SPECIAL REQUIREMENTS
CAC-63B@9"		8082-PCB	
CAC-62B@9"		↓	

Please add to Work Order IJG0597

TURNAROUND STATUS: ___ Same Day ___ 24hr ✓ 48hr ___ 3days

___ 5days ___ Standard ___ No Rush Charge

Del Mar Analytical

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ADDITIONAL ANALYSIS REQUEST FORM

Today's Date: 8/8/00 Del Mar Analytical Project Manager: Pat

Request via: ✓ telephone ____ chain of custody form ____ fax transmission ____ E-mail ____ other

Client: RT Corp Contact: Sally Bibodeau

Project: Boeing / Rocketdyne, 870071

Date Sampled: 7/21 Date Received: 7/21

Status: ____ in progress ✓ completed ____ received today ____ received yesterday ____ on hold ____ other

SAMPLE NUMBER	SAMPLE DESCRIPTION	ANALYSIS REQUESTED	SPECIAL REQUIREMENTS
IJG0597-17	HG-1	TCLP-Hg	TTLC-Hg = 83 ppm
-18	HG-2	↓	= 450 ppm
-19	HG-3	↓	= 130 ppm
-20	HG-4	↓	= 570 ppm

Please add to orig. Work Order

TURNAROUND STATUS: ____ Same Day ____ 24hr ____ 48hr ✓ 3days

____ 5days ____ Standard ____ No Rush Charge

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9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

000525

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing/Rocketdyne c/o IT 601 S. Glenoaks #314 Burbank CA 91502

Project/PO Number: 870071

Project Manager: John McMillan/Sally Bilodeau

Phone Number: 818 841 1160

Sampler: BCE/SUB

Fax Number: 818 846 9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: PCBs	Total Mercury								Special Instructions
CAC-66B@3"	Soil	4ozJar	1	7/21 9:10	none	X									Invoice Boeing Send results to Boeing and IT.
CAC-66B@6"	"	"		9:15		X	} only analize if 66B 3" is >600								
CAC-66B@9"				9:20		X									
CAC-66D@3"				935		X									
CAC-63B@9"				9:35		X	} only analize if 63B@6" is >600								
CAC-62B@9"				9:40		X	} " " 62B@6" "								by CAC 43B
CAC-69B@3"				9:56		X									2' step out from 62B
CAC-69B@6"				9:58			} only analize if 69B at 3" is >600								
CAC-69B@9"				1008											
CAC-70B@3"				1009											2' step out from 69B
CAC-70B@6"				1010			} only analize if 70B at 3" is >600								
CAC-70B@9"				1020											
13312-1a		Ring 6"		11:25			X								} Composit 1a, 1b and 1c
13312-1b		6" Ring		1127			X								

Relinquished By: Brian E. Epter	Date /Time: 7/21/00 15:13	Received by: Jason Ruiz	Date /Time: 7/21/00 1513
Relinquished By: Jason Ruiz	Date /Time: 7/21/00 1700	Received by:	Date /Time:
Relinquished By:	Date /Time:	Received in Lab by: Shirley Ho	Date /Time: 7/21/00 17:00

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours X (PCB) normal X (Hg)

Sample Integrity: (Check)
intact X on ice 3°

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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000526

CHAIN OF CUSTODY FORM

Client Name/Address: IT/Burbank

Project/PO Number:

Project Manager:

Phone Number:

Sampler:

Fax Number:

Analysis Required: Total Hdy

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Total Hdy	Special Instructions
13312-1c	Soil	6" s.s. ring	1	7/21/00/1129	none	X	Composit w pair. 2
13312-2a			1	1140			Composit
13312-2b			1	1141			3 to 1
13312-2c			1	1143			
13312-3a			1	1145			
13312-3b			1	1147			11
13312-3c			1	1150			
13312-4a			1	1153			
13312-4b			1	1155			11
13312-4c			1	1157			
13186-1a			1	1205			
13186-1b			1	1207			11
13186-1c			1	1210			
13186-2a		X	1	1212			

Relinquished By: Brian K. Eyler	Date /Time: 7/21/00 1513	Received by: Jesse Ruiz	Date /Time: 7/21/00 1513
Relinquished By: Jesse Ruiz	Date /Time: 7/21/00 1700	Received by:	Date /Time:
Relinquished By:	Date /Time:	Received in lab by:	Date /Time: 7/21/00 17:06

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice 3°

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COC-GB

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9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

000527

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing c/o LT 601 S Glenoaks blvd 314 Burbank, CA 91502

Project/PO Number: 870071

Project Manager: John McMillan, Sally Bilodeau

Phone Number: 818 841 1160

Sampler: BCE

Fax Number: 818 846 9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Total Mercury	Special Instructions
13186-2b	Soil	6 oz VOAs	1	7/21		X	Composit 3:1
13186-2c							
13186-3a				1225			Composit 3:1
13186-3b				1227			
13186-3c				1229			
13186-4a				1231			
13186-4b				1233			11
13186-4c				1236			
B18-1a				1245			
B18-1b				1247			11
B18-1c				1250			
B18-2a				1252			
B18-2b				1254			11
B18-2c				1256			

Relinquished By:	Date /Time:	Received by:	Date /Time:
Brian K. Eyster	7/21/00 1513		7/21/00 1513
	7/21/00 1700		
		Received in Lab by:	7/21/00 17:00

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice 3°

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COC-GB

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000528

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing 601 T 601 S. Glenoaks #314

Project/PO Number: 870071

Project Manager: John McMillan / Sally Biloden

Phone Number: 818 841 1160

Sampler: BCE / SWB

Fax Number: 818 846 9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: Total Mercury	Special Instructions
B18-3a	Soil	6" Rings	1	1300		X	Invoice goes to Boeing, Results go to Boeing and IT
B18-3b	↓	↓	↓	1302		X	composite 3:1
B18-3c				1304		X	
B18-4a				1306		X	composite
B18-4B				1308		X	
B18-4c	↓	↓	↓	1310		X	
HG-1	Soil	4oz	1	1340		X	
HG-2			1	1342		X	
HG-3			1	1343		X	
HG-4	↓	↓	1	1344		X	

Relinquished By: [signature] Date /Time: 7/21/00 1513

Received by: [signature] Date /Time: 7/21/00 1513

Relinquished By: [signature] Date /Time: 7/21/00 1700

Received by: Date /Time:

Relinquished By: Date /Time:

Received in Lab by: [signature] Date /Time: 7/21/00 17:00

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice 3°

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

IJH0438

Del Mar Analytical

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

8 & PCB

LABORATORY REPORT

Prepared For: IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502

Attention Sally Bilodeau
Project Boeing/Rocketdyne
870071, 94040000

Sampled: 08/11/00
Received: 08/11/00
Reported: 08/21/00

This laboratory report is confidential and is intended for the sole use of Del Mar Analytical and its client. This entire report was reviewed and approved for release.

CA ELAP Certificate #1197
AZ DHS License #AZ0428

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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Del Mar Analytical

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502
Attention: Sally Bilodeau

Client Project ID: Boeing/Rocketdyne
870071, 94040000
Report Number: IJH0438

Sampled: 08/11/00
Received: 08/11/00

DATA QUALIFIERS AND DEFINITIONS

Z3 The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

NR Not reported.

RPD Relative Percent Difference

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

000522

CHAIN OF CUSTODY FORM

Client Name/Address:
Boeing / Rocketdyne
c/o IT 601 S Glenoaks # 314
Burbank CA 91360

Project/PO Number:
870071 ~~200000~~ 94040000

Project Manager:
Sally Bilodeau / John McMillan

Phone Number:
818 841 1160

Sampler:
SWB

Fax Number:
818 846 9280

Analysis Required: PCBs

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Special Instructions
CAC-71B	Soil	4oz glass jar	1	8/11/00 1020	None	Mix / Homogenize each jar
CAC-72B				1040		Homogenize Soil
CAC-72D				1045		
CAC-73B				1105		
CAC-74B				11:15		
CAC-75B				1123		
CAC-76B				1135		at CAC 35B opposite side of bank CAC 8B
CAC-77B				1140		
CAC-78B				1200		7' on CAC 8B

Bill Boeing send results to Boeing David Chung + IT Sally Bilodeau

Relinquished By:	Date /Time:	Received by:	Date /Time:
Sally W Bilodeau	8/14/00 15:42	MAV	8-17-00 1542
	8.14.00 @ 1700		8.14.00 1100
	8 1400 1220		8/14/00 12:20

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days X
48 hours ____ normal ____

Sample Integrity: (Check)
intact X on ice 3°

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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IJH 0606

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

3-B
3-A
3-C

LABORATORY REPORT

Prepared For: IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502

Attention: Sally Bilodeau
Project: Boeing/Rocketdyne
870071

Sampled: 08/17/00
Received: 08/17/00
Reported: 09/06/00

This laboratory report is confidential and is intended for the sole use of Del Mar Analytical and its client. This entire report was reviewed and approved for release.

CA ELAP Certificate #1197
AZ DHS License #AZ0428

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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CORRECTIVE ACTION REPORT

Department:	GC	Date:	9/01/00
Method:	EPA 8082	Matrix:	Soil
QC Batch:	I0H2832		

Identification and Definition of Problem:

The Aroclor 1016, Aroclor 1260, and DCB recoveries in the matrix spike duplicate were below the acceptance limits.

Determination of the Cause of the Problem:

The low recoveries of all target analytes in the matrix spike duplicate indicate that a portion of the sample extract may have been spilled during the final portion of the extraction procedure.

Corrective Action:

The laboratory control sample and matrix spike were within acceptance limits for all target analytes. The surrogate recoveries of all other QC and samples were within the acceptance limits. The MSD results were flagged with an 'M2' qualifier indicating the low MSD recoveries.

Quality Assurance Approval: Mary Ward Date: 9/11/00

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000565

CHAIN OF CUSTODY FORM

IJA0606

Client Name/Address: Boeing / Rocketdyne c/o IT 601 S Glenoaks #314 Burbank CA 91502

Project/PO Number: 870071

Project Manager: Sally Biloclean / John McMillan

Phone Number: 818 841 1160

Sampler: BICE

Fax Number: 818 846 9280

Analysis Required

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Total Mercury 7470	PCBs (8082)	Perchlorate	Dioxins (8290)
PC-23	Soil	Jar 4oz	1	8/17/00 925	NONE	X			
CBC-795W	↓	9oz	2	1100		X	X	X	X
CBC-795WD		↓	2	1105		X	X	X	X
CBC-805			2	1110	↓	X	X	X	X

Special Instructions

Invoice goes to Boeing; results go to IT and Boeing

X Please homogenize each sample prior to analysis

Relinquished By:	Date /Time:	Received by:	Date /Time:
Brian K. Eglehen	8/17/00 @ 12:49	[illegible] SMAN	8.17.00 1249
[illegible]	8.17.00 1255	[illegible]	8/17/00 1255
[illegible]	8/17/00 1450	[illegible]	8-17-00 1450

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days X
48 hours X PC-23 Hg normal ✓ 8/17/00 per S.B.

Sample Integrity: (Check)
intact X on ice 5°C

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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CHAIN OF CUSTODY FORM

Page 1 of 1

LJA0606

Client Name/Address:
Boeing / Rocketdyne
c/o IT 601 S Glenoaks #314
Burbank CA 91502

Project/PO Number:
870071

Project Manager:
Sally Biloudeau / John McMillan

Phone Number:
818 841 1160

Sampler:
BIC E

Fax Number:
818 846 9280

Invoice goes to Boeing, results go to IT and Boeing

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Total Mercury 7470	PCBs (8082)	Perchlorate	Dioxins (8290)					Special Instructions
PC-23	Soil	Jar 4oz	1	8/17/00 925	NONE	X								* Please homogenize each sample prior to analysis
CBC-795W	↓	4oz	2	1100		X	X	X	X					
CBC-795W D		↓	2	1105		X	X	X	X					
CBC-805	↓	↓	2	1110	↓	X	X	X	X					

Analysis Required

Relinquished By:	Date /Time:	Received by:	Date /Time:
Brian K. Eglehen	8/17/00 @ 12:49	[illegible] DMA	8.17.00 1249
[illegible]	8.17.00 1255	[illegible]	8/17/00 1255
[illegible]	8/17/00 1450	[illegible]	8-17-00 1450

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days X
48 hours X PC-23 Hg only normal ✓ 8/17/00 per S.B.

Sample Integrity: (Check)
intact X on ice 5°C

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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CASE NARRATIVE

Analysis of Samples for the Presence of

Polychlorinated Dibenzo-*p*-Dioxins and Dibenzofurans by

High-Resolution Chromatography / High-Resolution Mass Spectrometry

Method 8290 Rev. 0 (9/94)

Date:	August 23, 2000
Client ID:	Del Mar Analytical
P.O. Number:	IJH0606
TLI Project Number:	51687

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Overview

The samples and associated QC samples were extracted and analyzed according to procedures described in EPA Method 8290 Rev. 0 (9/94). Any particular difficulties encountered during the sample handling by Triangle Laboratories will be discussed in the QC Remarks section below. This report contains results from only the 8290 dioxin/furan analyses of the soil samples.

Quality Control Samples

A laboratory method blank, identified as the TLI Blank, was prepared along with the samples.

Laboratory control spike (LCS) and laboratory control spike duplicate (LCSD) samples were extracted and analyzed along with the samples. A report summarizing the analyte recoveries and relative percent differences for these samples is included in the data package.

Quality Control Remarks

This release of this particular set of Del Mar Analytical analytical data by Triangle Laboratories was authorized by the Quality Control Chemist who has reviewed each sample data package following a series of inspections/reviews. When applicable, general deviations from acceptable QC requirements are identified below and comments are made on the effect of these deviations upon the validity and reliability of the results. Specific QC issues associated with this particular project are:

Sample receipt: Three soil samples were received from Del Mar Analytical at 4.0 °C in good condition on August 18, 2000 and stored in a refrigerator at 4 °C. The sample identifications on the sample labels did not exactly match those on the client's chain of custody. The sample identifications on the sample labels were used for all reports and paperwork.

Sample Preparation Laboratory: None

Mass Spectrometry: None

Data Review: None

Other Comments: No 2,3,7,8-substituted target analytes were detected in the method blank above the target detection limit (TDL).

Method 8290 contains separate criteria for beginning and ending continuing calibrations. When the ending calibration meets criteria established for the beginning calibration, the average response factor from the initial calibration is used. When the ending calibration only meets the less stringent criteria specified for an ending calibration, the average of the response factor from the beginning and ending calibration is used for analyte and internal standard calculations. Affected samples are identified by the listing of both the beginning and ending calibration filename on the sample report.

The analytical data presented in this report are consistent with the guidelines of EPA Method 8290 Rev. 0 (9/94). Any exceptions have been discussed in the QC Remarks section of this case narrative with emphasis on their effect on the data. Should Del Mar Analytical have any questions or comments regarding this data package, please feel free to contact a Project Scientist, at 919/544-5729.

For Triangle Laboratories, Inc.,

Released by,

Kenneth Varley
Kenneth Varley

Report Preparation Chemist

The total number of pages in the data package is : 121 .

Method 8290 Sample Calculations:

Analyte Concentration

The concentration or amount of any analyte is calculated using the following expression.

$$C_{(\sigma)} = \frac{A_\sigma * Q_\beta}{A_\beta * RRF_{(\sigma)} * W}$$

Where:

$C_{(\sigma)}$	=	concentration or amount of a given analyte
A_σ	=	integrated current for the characteristic ions of the analyte
A_β	=	integrated current of the characteristic ions of the corresponding internal standard
Q_β	=	amount of internal standard added to the sample before extraction
$RRF_{(\sigma)}$	=	mean analyte relative response factor from the initial calibration
W	=	sample weight or volume

Detection Limits

The detection limit reported for a target analyte that is not detected or presents an analyte response that is less than 2.5 times the background level is calculated by using the following expression. The area of the analyte is replaced by the noise level measured in a region of the chromatogram clear of genuine GC signals. The detection limits represent the maximum possible concentration of a target analyte that could be present without being detected.

$$DL_{(\sigma)} = \frac{2.5 * H * Q_\beta}{H_\beta * RRF_{(\sigma)} * W}$$

Where:

$DL_{(\sigma)}$	=	estimated detection limit for a target analyte
2.5	=	minimum response required for a GC signal
H	=	sum heights of the noise
H_β	=	sum of peak heights of the characteristic ions of the corresponding internal standard
Q_β	=	amount of internal standard added to the sample before extraction
$RRF_{(\sigma)}$	=	mean analyte relative response factor from the initial calibration
W	=	sample weight or volume

Data Flags

In order to assist with data interpretation, data qualifier flags are used on the final reports. Please note that all data qualifier flags are subjective and are applied as consistently as possible. Each flag has been reviewed by two independent Chemists and the impact of the data qualifier flag on the quality of the data discussed above. The most commonly used flags are:

A **'B'** flag is used to indicate that an analyte has been detected in the laboratory method blank as well as in an associated field sample. The 'B' flag is used only when the concentration of analyte found in the sample is less than 20 times that found in the associated blank. This flag denotes possible contribution of background laboratory contamination to the concentration or amount of that analyte detected in the field sample.

An **'E'** flag is used to indicate a concentration based on an analyte to internal standard ratio which exceeds the range of the calibration curve. Values which are outside the calibration curve are estimates only.

An **'I'** flag is used to indicate labeled standards have been interfered with on the GC column by coeluting, interferent peaks. The interference may have caused the standard's area to be overestimated. All quantitations relative to this standard, therefore, may be underestimated.

A **'J'** flag is used to indicate a concentration based on an analyte to internal standard ratio which is below the calibration curve. Values which are outside the calibration curve are estimates only.

A **'PR'** flag is used to indicate that a GC peak is poorly resolved. This resolution problem may be seen as two closely eluting peaks without a reasonable valley between the peak tops, overly broad peaks, or peaks whose shapes vary greatly from a normal distribution. The concentrations or amounts reported for such peaks are most likely overestimated.

A **'Q'** flag is used to indicate the presence of QC ion instabilities caused by quantitative interferences.

An **'RO'** flag is used to indicate that a labeled standard has an ion abundance ratio that is outside of the acceptable QC limits, most likely due to a coeluting interference. This may have caused the percent recovery of the standard to be overestimated. All quantitations versus this standard, therefore, may be underestimated.

An **'S'** flag indicates that the response of a specific PCDD/PCDF isomer has exceeded the normal dynamic range of the mass spectrometer detection system. The corresponding signal is saturated and the reported analyte concentration is a 'minimum estimate'. When the 'S' qualifier is used in the reporting of 'totals', there is saturation of one (not

necessarily from a specific isomer) or more saturated signals for a given class of compounds. Results for saturated analytes are reported as greater than the upper calibration limit.

A **'U'** flag is used to indicate that a specific isomer cannot be resolved from a large, co-eluting interferent GC peak. The specific isomer is reported as not detected as a valid concentration cannot be determined. The calculated detection limit, therefore, should be considered an underestimated value.

A **'V'** flag is used to indicate that, although the percent recovery of a labeled standard may be below a specific QC limit, the signal-to-noise ratio of the peak is greater than ten-to-one. The standard is considered reliably quantifiable. All quantitations derived from the standard are considered valid as well.

An **'X'** flag is used to indicate that a polychlorodibenzofuran (PCDF) peak has eluted at the same time as the associated diphenyl ether (DPE) and that the DPE peak intensity is at least ten percent of the total PCDF peak intensity. Total PCDF values are flagged 'X' if the total DPE contribution to the total PCDF value is greater than ten percent. All PCDF peaks that are significantly influenced by the presence of DPE peaks are either reported as "estimated maximum possible concentration (EMPC) values without regard to the isotopic abundance ratio, or are included in the detection limit value depending on the analytical method.

IJH0950

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Hg - 0.4
CAd - 0.6
PCB - 0.16

LABORATORY REPORT

Prepared For: IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502

Attention: Sally Bilodeau
Project: Boeing/Rocketdyne
870071

Sampled: 08/25/00
Received: 08/25/00
Reported: 09/04/00

This laboratory report is confidential and is intended for the sole use of Del Mar Analytical and its client. This entire report was reviewed and approved for release.

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AZ DHS License #AZ0428

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502
Attention: Sally Bilodeau

Client Project ID: Boeing/Rocketdyne 870071
Report Number: IJH0919

Sampled: 08/25/00
Received: 08/25/00

DATA QUALIFIERS AND DEFINITIONS

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

NR Not reported.

RPD Relative Percent Difference

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

CORRECTIVE ACTION REPORT

Department:	GC	Date:	9/01/00
Method:	EPA 8082	Matrix:	Soil
QC Batch:	I0H2832		

Identification and Definition of Problem:

The Aroclor 1016, Aroclor 1260, and DCB recoveries in the matrix spike duplicate were below the acceptance limits.

Determination of the Cause of the Problem:

The low recoveries of all target analytes in the matrix spike duplicate indicate that a portion of the sample extract may have been spilled during the final portion of the extraction procedure.

Corrective Action:

The laboratory control sample and matrix spike were within acceptance limits for all target analytes. The surrogate recoveries of all other QC and samples were within the acceptance limits. The MSD results were flagged with an 'M2' qualifier indicating the low MSD recoveries.

Quality Assurance Approval: _____ Date: 9/6/00

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000523

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing / Rocketdyne c/o IT 6001 S Glenoaks Blvd Burbank, CA 91510

Project/PO Number: 870071

Project Manager: John McMillan

Phone Number: 818 841-1160

Sampler: Sally Bibodeau SWB

Fax Number: 818 846-9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	PCB's	TOTAL Hg	Perchlorate	Dioxin	PCB Congeners				
PC-25 ~~150~~	soil	glass jar	1	8/28/00					X					
PC-28D	soil	glass jar	2	8/28/0000		X	X	X	X					
CAC 89BW	soil	glass	1	8/28/1845					X					

Analysis Required

Invoice goes to Boeing, Results go to Boeing & IT

Special Instructions

Homogenize Sample before analyses

Relinquished By:	Date /Time:	Received by:	Date /Time:
Sally Bibodeau	8/28/00 1600	[signature] SMAV	8-28-00 1600
[signature]	8-28-00 1600	[signature]	8/28/00 1600
[signature]	8/28/00 1820	[signature]	8-28-00 1820

Turnaround Time: (Check) 7 Day Dioxin
same day ____ 72 hours ____ 14 Day
24 hours X PCB 5 days ____ Hi Res PCB
48 hours ____ normal Hi + Res

Sample Integrity: (Check)
intact X on ice 4°C

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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000524

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing / Rocketdyne C/O IT 601 S Glenoaks #314 Burbank CA 91510

Project/PO Number: 870071

Project Manager: John McMillan / Sally Bilodeau

Phone Number: 818 841 1160

Sampler: SWB

Fax Number: 818 846 9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	PCBs	Total Hg	Perchlorate	Dioxin	PCB (High Res)					Special Instructions
CBC-915	Soil	glass jar	2	8/28/00 930	NONE	X	X	X	X						Homogenize Sample before analysis
CBC-925			2	1000		X	X	X	X						
PC-26			1	1100	^			X							5' from 3092167O
PC-27			2	1110		X	X	X	X						
PC-28			2	1125		X	X	X	X						ON West side of FSDF 4ft N of well
CBC-935			2	1150		X	X	X	X						Middle of road cut NTC
CBC-945W			2	1155		X	X	X	X						
CBC-515W			2	1245		X	X	X	X						by eye wash
CAC-90BE			1	1330					X						
CAC-90BW			1	1335					X						
CAC-89BE			1	13:40					X						
CAC-106PC			1	13:52						X					
CAC-69PC			1	14:00						X					
PC-25			1	14:30					X						

Relinquished By: Sally Bilodeau Date/Time: 8/28/00 1600

Received by: MAV Date/Time: 8-28-00 1600

Relinquished By: Date/Time: 8-28-00 1600

Received by: Date/Time: 8/28/00 1600

Relinquished By: Date/Time: 8/28/00 1820

Received in Lab by: Date/Time: 8-28-00 1820

Turnaround Time: (Check) 7 Days Dioxins
same day ____ 72 hours ____ 14 Days Hi Res PCBs
24 hours X Monthly 5 days ____
48 hours X PCBs normal Hg Perc

Sample Integrity: (Check)
intact X on ice 4°C

Invoice goes to Boeing, Results to Boeing IT

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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000566

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing / Rocketdyne c/o IT 601 S. Glenoaks #314

Project/PO Number: 870071

Project Manager: John McMillan / Sally Bilodeau

Phone Number: 818 841 1160

Sampler: BKE / SCB

Fax Number: 818 846 9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: PCBs (8082)	Perchlorate	Total Hg (7470)	Dioxins (8290)	Congeners (SP?) PCBs (1668M)					Special Instructions
CAC-79B	Soil	8oz Glass Jar	1	8/25/00 0835	NONE	X									Homogenize Sample prior to analysis
CAC-80B			1	845		X									
CAC-81B			1	848		X									
CAC-82B			1	853		X									
CAC-83B			1	855		X									
CAC-84B			1	900		X									
CAC-85B			1	905		X									
CAC-90BE		1	2	1155		X	X	X	X						
CAC-90BW		1	2	1155		X	X	X	X						
CAC-86B			1	1240		X									
CAC-86D			1	1245		X									
CAC-87B			1	0940		X									
CAC-88B			1	0948		X									
CAC-89BE		1	2	1145		X	X	X	X						

Invoice goes to Boeing, results go to IT + Boeing
PCBs rush
Dioxins 7day
PCB hi Rs 14day
Rest Hs - Normal

Relinquished By: Brian K. Eylander	Date /Time: 8/25/00 @ 1540	Received by:	Date /Time: 8/25/00 1545	Turnaround Time: (Check) Dioxin 7day; PCB HiRs 14days; other PCBs 24 hours X; same day ___; 72 hours ___; 5 days ___; 48 hours ___; normal ___
Relinquished By:	Date /Time: 8/25/00 1725	Received by:	Date /Time:	
Relinquished By:	Date /Time:	Received in Lab by:	Date /Time: 8-25-00 1725	Sample Integrity: (Check) intact X; on ice 5°C

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

Del Mar Analytical
2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
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9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

000567

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing C/O IT, Burbank

Project/PO Number: 870071

Project Manager: J. McMillan/S. Bilodeau

Phone Number: 818-841-1160

Sampler: BKE/SWB

Fax Number:

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	PCBs (8082)	Total HpCl (1746) Perchlorate	Dioxins (8290)	Congeners (sp?) PCBs (1668M)					Special Instructions
CAC-89BW	Soil	8oz+4oz	2	8/25/00 1145		X	X	X	X					Homogenized sample
~~CAC-69BC @ 18"~~		8oz	1	/1305	No Sample received				X					Urban analysis
~~CAC-66BC @ 18"~~		8oz	1	/1310	No Sample received				X					
PC-24		8oz+4oz	2	/1340		X	X	X	X					
PC-25	↓	"	2	/1350		X	X	X	X					↓

Analysis Required: PCBs - Wipe; Dioxins 7 day; PCBs high Res 14 day; Hgs + Perc - normal

Relinquished By:	Date /Time:	Received by:	Date /Time:
Brian R. Eylatte	8/25/00 1540		8/25/00 1540
Relinquished By:	Date /Time:	Received by:	Date /Time:
	8/25/00 1725		
Relinquished By:	Date /Time:	Received in Lab by:	Date /Time:
			8-25-00 1725

Turnaround Time: (Check) Dioxin 7 days
same day ____ 72 hours ____
24 hours X 5 days
48 hours ____ PCBs High Res 14 days

Sample Integrity: (Check)
intact X on ice 5 °C

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

CASE NARRATIVE

Analysis of Samples for the Presence of

Polychlorinated Biphenyls by

High-Resolution Chromatography / High-Resolution Mass Spectrometry

---

Date:	October 4, 2000
Client ID:	Del Mar Analytical
P.O. Number:	IJH0950
TLI Project Number:	51765B

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Rev. 05/08/97

Overview

Sixteen soil samples were received from Del Mar Analytical in good condition August 30, 2000 at 3.0 °C and stored in a refrigerator at 4°C. Two samples were extracted and analyzed by Triangle Laboratories' WHO List procedures. Any particular difficulties encountered during the sample handling by Triangle Labs will be discussed in the QC remark section below. Results relate only to the items tested.

Quality Control Samples

A laboratory method blank, identified as the TLI Blank, was prepared and analyzed along with the samples.

A laboratory control spike/spike duplicate pair (LCS/LCSD) was also prepared and analyzed along with the samples.

QC Remarks

The release of this particular set of Del Mar Analytical analytical data by Triangle Labs was authorized by the Quality Control Chemist who has reviewed each sample data package individually following a series of inspections/reviews. When applicable, general deviations from acceptable QC requirements are identified below. Specific QC problems associated with this particular project are:

Sample Preparation Laboratory: None

Mass Spectrometry: None

Data Review: Please note there are no limits for recovery or ion abundance ratios for the MonoCB, DiCB, or TriCB internal standards. The chemistry of these compounds is such that recovery limits for these compounds can not be guaranteed. The reported limits are advisory limits only. The software applies the "V" flag based on these advisory limits.

The 2,2',4,4',5-PentaCB (#101) and 3,3',4,4'5,5'-HexaCB (#169) internal standard recoveries are above the QC limits in the samples. This is due to the quantitative interference affecting these standards. The results of these analytes may be slightly overestimated in the samples.

The Hexa PCB #156 relative percent differences is outside the QC limits in the LCS/LCSD analyses. This is due to a qualitative interference which co-eluted with this analyte in the LCSD. Since the LCSD was the only sample showing this particular interference, the field sample data are not considered to be significantly affected.

By our interpretation, the analytical data in this project is valid based on the guidelines of Triangle Laboratories' WHO List procedures. Any specific QC concerns or problems have been discussed in the QC REMARKS section with emphasis on their affect on the data. Should Del Mar Analytical have any questions or comments regarding this data package, please feel free to a contact a Project Scientist at (919) 544-5729.

For Triangle Laboratories, Inc.,

Released By

Rose V. West

Rose West
Report Preparation Chemist

The total number of pages in this data package is : 194

CASE NARRATIVE

Analysis of Samples for the Presence of

Polychlorinated Dibenzo-*p*-Dioxins and Dibenzofurans by

High-Resolution Chromatography / High-Resolution Mass Spectrometry

Method 8290 Rev. 0 (9/94)

Date:	September 7, 2000
Client ID:	Del Mar Analytical
P.O. Number:	IJH0950
TLI Project Number:	51765A

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Rev. 11/19/97

Overview

The samples and associated QC samples were extracted and analyzed according to procedures described in EPA Method 8290 Rev. 0 (9/94). Any particular difficulties encountered during the sample handling by Triangle Laboratories will be discussed in the QC Remarks section below. This report contains results from only the 8290 dioxin/furan analyses of the fourteen soil samples.

Quality Control Samples

A laboratory method blank, identified as the TLI Blank, was prepared along with the samples.

Laboratory control spike (LCS) and laboratory control spike duplicate (LCSD) samples were extracted and analyzed along with the samples. A report summarizing the analyte recoveries and relative percent differences for these samples is included in the data package.

Quality Control Remarks

This release of this particular set of Del Mar Analytical analytical data by Triangle Laboratories was authorized by the Quality Control Chemist who has reviewed each sample data package following a series of inspections/reviews. When applicable, general deviations from acceptable QC requirements are identified below and comments are made on the effect of these deviations upon the validity and reliability of the results. Specific QC issues associated with this particular project are:

Sample receipt: Sixteen soil samples were received from Del Mar Analytical at 3.0 °C in good condition on August 30, 2000 and stored in a refrigerator at 4 °C.

Sample Preparation Laboratory: None

Mass Spectrometry: None

Data Review: The percent recoveries of 12378-PeCDF and 23478-PeCDF in the LCS and LCSD analyses are slightly above the QC criteria (70-130%). However, the relative percent differences are well within the QC criteria (< 20%). TLI guidelines allow up to two analytes to have percent recovery as high as 145% as low as 60%, so long as the relative percent differences are within the QC criteria. Results for these analytes may be over-estimated in the field samples.

Other Comments: No 2,3,7,8-substituted target analytes were detected in the method blank above the target detection limit (TDL).

The analytical data presented in this report are consistent with the guidelines of EPA Method 8290 Rev. 0 (9/94). Any exceptions have been discussed in the QC Remarks section of this case narrative with emphasis on their effect on the data. Should Del Mar Analytical have any questions or comments regarding this data package, please feel free to contact a Project Scientist, at 919/544-5729.

For Triangle Laboratories, Inc.,

Released by,

Kenneth Varley

Kenneth Varley

Report Preparation Chemist

The total number of pages in the data package is : 495.

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

IJI0055

LABORATORY REPORT

Prepared For: IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502

Attention: Sally Bilodeau
Project: Boeing/Rocketdyne
870071

Sampled: 09/01/00
Received: 09/01/00
Reported: 09/07/00

This laboratory report is confidential and is intended for the sole use of Del Mar Analytical and its client. This entire report was reviewed and approved for release.

CA ELAP Certificate #1197
AZ DHS License #AZ0428

Del Mar Analytical, Irvine
Pat Abe
Project Manager

MAILED
SEP 16 2000

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

T Corporation/Emcon - Burbank
501 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502
Attention: Sally Bilodeau

Client Project ID: Boeing/Rocketdyne
870071
Report Number: IJI0055

Sampled: 09/01/00
Received: 09/01/00

DATA QUALIFIERS AND DEFINITIONS

D Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

R Not reported.

PD Relative Percent Difference

el Mar Analytical, Irvine
at Abe
roject Manager

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7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 • FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

Date 9/1/00

Page 1 of 1

LABORATORY CLIENT: Boeing Rocketdyne

ADDRESS: C/o IT 601 S Glenoaks Blvd #314

CITY Burbank STATE CA ZIP 91502

TEL: | FAX: | E-MAIL:

CLIENT PROJECT NAME / NUMBER: Boeing FSDF 870071

PROJECT CONTACT: Sally Biladeau / John McMillan

SAMPLER(S): (SIGNATURE) Sally Biladeau

P.O. NO.:

QUOTE NO.:

LAB USE ONLY

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☒ 48 HR ☐ 72 HR ☐ 5 DAYS ☐ 10 DAYS
PCBs LA 7 Day Drew Hg - Push Regular

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___ / ___ / ___

SPECIAL INSTRUCTIONS
Homogenize sample before analysis

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	LOCATION/DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH (G)	TPH (D) (O)	BTEX / MTBE (8021B)	HALOCARBONS (8021B)	VOCs (8260B)	SVOCs (8270C)	PEST (8081A)	PCBs (8082)	EDB / DBCP (504.1) or (8011)	CAC, T22 METALS (6010B)	ICP/MS METALS (6020)	PNAs (8310)	VOCs (TO-14A) or (TO-15)	CH4 / TGNMO (25.1)	FIXED GASES (25.1) or (D1946)	Total Mercury	Perchlorate	8260 - Full HVOC
	CAC-95B	3' from CAC-79B	9/1/00	8:45	Soil	1 glass jar								X										
	CBC-96SW	Upper Channel @ W Side, N. end		945		2								X								X	X	X
	CBC-97SW	E side N. end		950		2								X								X	X	X
	CBC-98S	40' from N end bottom		955		2								X								X	X	X
	CBC-99SW	Center of N. end		1010		2								X								X	X	X
	CBC-[illegible]SW-D (CBC-97SW)	E side N end		950		2								X								X	X	X
						2 glass jars 9/1/00																		Sent to Other Lab (Triangle)

Relinquished by: (Signature) Sally G. Biladeau	Received by: (Signature) R. McMAY	Date: 9.1.00	Time: 1305
Relinquished by: (Signature) 9.1.00	Received by: (Signature) 9/1/00	Date: 9/1/00	Time: 1645
Relinquished by: (Signature)	Received for Laboratory by: (Signature) Laura Morga	Date: 9/1/00	Time: 1755

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02/01/99 Revision

FEB-28-2002 14:32 DEL MAR ANALYTICAL 949 261 1228 P.13/13

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GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 • FAX: (714) 894-7501

CHAIN OF CUSTODY RECORD

Date 9/1/00

Page 1 of 1

LABORATORY CLIENT: Boeing Rocketdyne
ADDRESS: C/O IT 601 S Glenoaks Blvd #314
CITY: Burbank STATE: CA ZIP: 91502
TEL: FAX: E-MAIL:

CLIENT PROJECT NAME / NUMBER: Boeing FSDF 870071
PROJECT CONTACT: Sally Biladeau / John McMillan
SAMPLER(S): (SIGNATURE) Sally Biladeau
P.O. NO.:
QUOTE NO.:
LAB USE ONLY

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☒ 48 HR (PCB) ☐ 72 HR ☐ 5 DAYS (7 Day DioxN) ☐ 10 DAYS (HS - Perch Regulation)

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ___ / ___ / ___.

SPECIAL INSTRUCTIONS
Homogenize sample before analysis

REQUESTED ANALYSES

LAB USE ONLY	SAMPLE ID	LOCATION/DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH (G)	TPH (D) (O)	BTEX / MTBE (8021B)	HALOCARBONS (8021B)	VOCs (8260B)	SVOCs (8270C)	PEST (8081A)	PCBs (8082)	EDB / DBCP (504.1) or (8011)	CAC, T22 METALS (6010B)	ICP/MS METALS (6020)	PNAs (8310)	VOCs (TO-14A) or (TO-15)	CH_4 / TGNMO (25.1)	FIXED GASES (25.1) or (D1946)	Total Mercury	Perchlorate	Dioxins – 9/1/00
	CAC-95B	3' from CAC-79B	9/1/00	8:45	Soil	1 jar								X										
	CBC-96SW	Upper Channel B W Side, N. end		945		2								X								X	X	X
	CBC-97SW	E side N. end		950		2								X								X	X	X
	CBC-98S	40' from N end bottom		955		2								X								X	X	X
	CBC-99SW	Center of N. end		1010		2								X								X	X	X
	CBC-~~98~~97SWD (97)	E side N end		950		2								X								X	X	X

9/1/00

Sent to Other Lab (Triangle)

Relinquished by: (Signature) Sally Biladeau	Received by: (Signature)	Date: 9.1.00	Time: 1305
Relinquished by: (Signature) 9.1.00	Received by: (Signature) 9/1/00	Date: 9/1/00	Time: 1645
Relinquished by: (Signature)	Received for Laboratory by: (Signature) Laura Morga	Date: 9/1/00	Time: 1755

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02/01/99 Revision

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CASE NARRATIVE

Analysis of Samples for the Presence of

Polychlorinated Dibenzo-*p*-Dioxins and Dibenzofurans by

High-Resolution Chromatography / High-Resolution Mass Spectrometry

Method 8290 Rev. 0 (9/94)

Date:	September 14, 2000
Client ID:	Del Mar Analytical
P.O. Number:	870071
TLI Project Number:	51826

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Overview

The samples and associated QC samples were extracted and analyzed according to procedures described in EPA Method 8290 Rev. 0 (9/94). Any particular difficulties encountered during the sample handling by Triangle Laboratories will be discussed in the QC Remarks section below. This report contains results from only the 8290 dioxin/furan analyses of the soil samples.

Quality Control Samples

A laboratory method blank, identified as the TLI Blank, was prepared along with the samples.

Laboratory control spike (LCS) and laboratory control spike duplicate (LCSD) samples were extracted and analyzed along with the samples. A report summarizing the analyte recoveries and relative percent differences for these samples is included in the data package.

A clean-up blank was processed along with the sample to prove that contamination was not introduced during the cleanup procedures. The results of this clean-up blank are included with the data package.

Quality Control Remarks

This release of this particular set of Del Mar Analytical analytical data by Triangle Laboratories was authorized by the Quality Control Chemist who has reviewed each sample data package following a series of inspections/reviews. When applicable, general deviations from acceptable QC requirements are identified below and comments are made on the effect of these deviations upon the validity and reliability of the results. Specific QC issues associated with this particular project are:

Sample receipt: Five soil samples were received from Del Mar Analytical at 5.0 °C in good condition on September 7, 2000 and stored in a refrigerator at 4 °C.

Sample Preparation ***Laboratory:*** None

Mass Spectrometry: None

Data Review: None

Other Comments: No 2,3,7,8-substituted target analytes were detected in the method blank above the target detection limit (TDL).

The analytical data presented in this report are consistent with the guidelines of EPA Method 8290 Rev. 0 (9/94). Any exceptions have been discussed in the QC Remarks section of this case narrative with emphasis on their effect on the data. Should Del Mar Analytical have any questions or comments regarding this data package, please feel free to contact a Project Scientist, at (919) 544-5729.

For Triangle Laboratories, Inc.,

Released by,

Nina Zinicola
Report Preparation Chemist

The total number of pages in the data package is : 276 .

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000568

CHAIN OF CUSTODY FORM

Page 1 of ____

Client Name/Address: Boeing c/o IT
601 S. Glenoaks Blvd. #314
Burbank, CA 91502

Project/PO Number: 870071

Project Manager: J. McMillan/S. Bilodeau

Phone Number: (818)841-1160

Sampler: SWB/BKE

Fax Number: (818) 846-9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: Dioxins (8290)	Special Instructions
CBC-96SW	Soil	9oz	1	9/6/00/0800	—	X	Invoice through Del Mar, Irvine CA
CBC-97SW		4oz	1	/0805	—	X	Homogenize sample before analysis
CBC-97SWD		4oz	1	/0807	—	X	
CBC-98S		9oz	1	/0810	—	X	
CBC-99SW		4oz	1	/0815	—	X	PRIORITY

Relinquished By: Date /Time:

Relinquished By: Date /Time:

Relinquished By: Date /Time:

Received by: Date /Time:

Received by: Date /Time:

Received in Lab by: Date /Time:

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal ____

Sample Integrity: (Check)
intact ____ on ice ____

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008784

CHAIN OF CUSTODY FORM

Page 1 of 1

Client Name/Address: Boeing/Rocketdyne
c/o IT Corporation
601 S. Glenoaks Blvd. Suite 314
Burbank, CA 91502

Project/PO Number: 870071

Project Manager: John McMillan / Sally Bilodeau

Phone Number: (818)841-1160

Sampler: Brian Eytcheson

Fax Number: (818)846-9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: PCBs (8082)	Special Instructions
CCC-24B	Soil	4oz	1	6/8 1340	—	X	

Relinquished By: Brian F. Eytcheson — Date /Time: 6/8/00 5:25 — Received by: — Date /Time: 6/08/00 3:25P

Relinquished By: — Date /Time: 6/09/00 8:00 — Received by: — Date /Time: DHAVI 6-9-00 8:00

Relinquished By: — Date /Time: 6-9-00 1155 — Received in Lab by: — Date /Time: 6-9-00 1155

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days X
48 hours ____ normal ____

Sample Integrity: (Check)
intact ✓ on ice ✓ 4°C

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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IJI0547

Del Mar Analytical

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

5 - SV
5 - MT
5 - PCB

LABORATORY REPORT

4 - Hg
2 - ClO4

Prepared For: IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502

Attention: Sally Bilodeau
Project: Boeing/Rocketdyne
870071

Sampled: 09/15/00
Received: 09/15/00
Reported: 09/20/00

This laboratory report is confidential and is intended for the sole use of Del Mar Analytical and its client. This entire report was reviewed and approved for release.

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AZ DHS License #AZ0428

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

CASE NARRATIVE

Client: IT Corporation / Emcon
Project: Boeing / Rocketdyne 870071
Lab #: IJI0547

Date Sampled: 9/15/00
Date Received: 9/15/00

Sample Description	Del Mar Lab #	Sample Matrix	Analyses Performed
PCS-29	IJI0547-01	Soil	EPA 8270C, EPA 8082 EPA 6010B, EPA 7471A EPA 300.0 Mod.
PCS-30	IJI0547-02	Soil	EPA 8270C, EPA 8082 EPA 6010B, EPA 7471A EPA 300.0 Mod.
PCS-32	IJI0547-03	Soil	EPA 8270C, EPA 8082 EPA 6010B, EPA 7471A EPA 300.0 Mod.
PCS-31	IJI0547-04	Soil	EPA 8270C, EPA 8082 EPA 6010B, EPA 7471A EPA 300.0 Mod.
PCS-33B	IJI0547-05	Soil	EPA 8270C, EPA 8082 EPA 6010B, EPA 7471A EPA 300.0 Mod.
CAC-100BE	IJI0547-06	Soil	EPA 7471A
CAC-101BE	IJI0547-07	Soil	EPA 7471A
CAC-101BED	IJI0547-08	Soil	EPA 7471A
CBC-102SW	IJI0547-09	Soil	EPA 7471A

SAMPLE RECEIPT: Samples were received intact and with chain of custody number 000572. The cooler temperature was measured at 5 °C upon receipt at the laboratory.

HOLDING TIMES: All samples were analyzed within holding times.

PROBLEMS ENCOUNTERED: No problems were encountered during sample analysis.

QA/QC CRITERIA: The MS and MSD recoveries for Antimony were below acceptance limits due to sample matrix interference for EPA 6010B QC batch I0I1858. See LCS for batch validation.

Due to high levels of Mercury found in sample IJI0312-05, the MS/MSD calculation does not provide useful spike recovery information for EPA 7471A QC batch I0I1937. See LCS for batch validation.

The MSD recovery for Perchlorate was above acceptance limits due to sample matrix interference for EPA 300.0 Mod. QC batch I0I1622. See LCS for batch validation.

OBSERVATIONS: No significant observations were made.

DEL MAR ANALYTICAL

Pat Abe
Project Manager

Del Mar Analytical

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IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502
Attention: Sally Bilodeau

Client Project ID: Boeing/Rocketdyne 870071
Report Number: IJI0547

Sampled:09/15/00
Received:09/15/00

DATA QUALIFIERS AND DEFINITIONS

M The MS and/or MSD were outside of the acceptance limits due to sample matrix interference. See Blank Spike (LCS).

M-HA Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

NR Not reported.

RPD Relative Percent Difference

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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QA/QC PACKAGE: LEVEL IV
PREPARED FOR IT CORPORATION / EMCON
LABORATORY NUMBER: IJI0547
PROJECT: BOEING / ROCKETDYNE 870071

CHAIN OF CUSTODY FORM

Del Mar Analytical
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000572

CHAIN OF CUSTODY FORM

Page 1 of 1

Client Name/Address: Boeing c/o IT, 601 S. Glenoaks Blvd. #314, Burbank, CA 91502

Project/PO Number: 870071

Project Manager: S. Bikkalam / S. McMillan

Phone Number: (818) 841-1160

Sampler: BKF/SWB

Fax Number: (818) 846-9250

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	PCBs (8082)	Total Hg (7471)	CAM 22 Metals	SVOCs (8270)	Perchlorate	STLC				Special Instructions
PCS-29	soil	9oz	2	9/15/00/1030	NONE	X	X	X	X	X	CAM 22 Metals				Please homogenize samples prior to analysis. DTSC took split
PCS-30			2	1100		X	per PA	X	X	X					
PCS-30B			2	1110		X		X	X	X					
PCS-31			2	1215		X		X	X	X					F-DTSC took split
PCS-33B			2	1120		X		X	X	X					
CAC-100BE			1	1245			X								← DTSC took split (~2' E of CAC-90BE)
CAC-101BE			1	1255			X								(~2' E. of CAC-90BE)
CAC-101BED			1	1300			X								
CBC-102SW			1	1310			X								(~3's of CBC-51SW)
											X's needed for CAM 22 Metals				

Analysis Required

Invoice to Boeing
Results to IT + Boeing

Relinquished By: Bryan K. Bikkalam	Date/Time: 9/15/00 1540	Received by: Josa Lung	Date/Time: 9/15/00 1540
Relinquished By: Josa Lung	Date/Time: 9/15/00 1730	Received by:	Date/Time:
Relinquished By:	Date/Time:	Received in Lab by:	Date/Time: 9-15-00 1730

Turnaround Time: (Check)
same day RUSH ALL ANALYSES 72 hours
24 hours 5 days
48 hours normal

Sample Integrity: (Check)
intact X on ice 5°C

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

Del Mar Analytical

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5-PCBs 5-8270
4-Hg 5-Perchlorates (All 72hrs) IJI0547 000572
5-CAM metals

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing c/o IT
601 S. Glenoaks Blvd. #314
Burbank, CA 91502

Project/PO Number: 870071

Project Manager: S. Bikkaram / S. McMillan

Phone Number: (818)841-1160

Sampler: BKE/SWB

Fax Number: (818)846-9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	PCBs (8082)	Total Hg (7470)	CAM 22 Metals	SVOCs (8270)	Perchlorate	STLC				Special Instructions
PCS-29	Soil	9oz	2	9/15/00/1030	NONE	X	X per PA	X	X	X	X CAM 22 Metals				Invoice to Boeing, Results to IT + Boeing DTSC took split Please homogenize samples prior to analysis ← DTSC took split
PCS-30			2	1100		X		X	X	X					
PCS-32 BKE			2	1110		X		X	X	X					
PCS-31			2	1215		X		X	X	X					
PCS-33B		↓	2	1120		X		X	X	X					
CAC-100BE			1	1245			X								← DTSC took split (~2' E of CAC-90BE)
CAC-101BE			1	1255			X								(~2' E. of CAC-90BE)
CAC-101BED			1	1300			X								
CBC-102SW	↓		1	1310			X								(~3' S. of CBC-51SW)

Analysis Required

**If needed for CAM 22 Metals

Relinquished By:	Date /Time:	Received by:	Date /Time:
[signature]	9/15/00 1540	[signature]	9/15/00 1540
[signature]	9/15/00 1730		

Received by:	Date /Time:
Received in Lab by: [signature]	9-15-00 1730

Turnaround Time: (Check)
same day RUSH ALL ANALYSES 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal ____

Sample Integrity: (Check)
intact X on ice 5°C

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

CASE NARRATIVE

Analysis of Samples for the Presence of

Polychlorinated Dibenzo-*p*-Dioxins and Dibenzofurans by

High-Resolution Chromatography / High-Resolution Mass Spectrometry

Method 8290 Rev. 0 (9/94)

Date:	September 30, 2000
Client ID:	Del Mar Analytical
P.O. Number:	870071
TLI Project Number:	51895r1

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Rev. 11/19/97

Overview

The sample(s) and associated QC samples were extracted and analyzed according to procedures described in EPA Method 8290 Rev. 0 (9/94). Any particular difficulties encountered during the sample handling by Triangle Laboratories will be discussed in the QC Remarks section below. This report contains results from only the 8290 dioxin/furan analyses of the soil samples.

Quality Control Samples

A laboratory method blank, identified as the TLI Blank, was prepared along with the samples.

Laboratory control spike (LCS) and laboratory control spike duplicate (LCSD) samples were extracted and analyzed along with the samples. A report summarizing the analyte recoveries and relative percent differences for these samples is included in the data package.

Quality Control Remarks

This release of this particular set of Del Mar Analytical analytical data by Triangle Laboratories was authorized by the Quality Control Chemist who has reviewed each sample data package following a series of inspections/reviews. When applicable, general deviations from acceptable QC requirements are identified below and comments are made on the effect of these deviations upon the validity and reliability of the results. Specific QC issues associated with this particular project are:

Sample receipt: Six soil samples were received from Del Mar Analytical at 4°C in good condition on September 16, 2000, and stored in a refrigerator at 4°C.

Sample Preparation Laboratory: None

Mass Spectrometry: None

Data Review: None

Other Comments: No 2,3,7,8-substituted target analytes were detected in the method blank above the target detection limit (TDL).

Method 8290 contains separate criteria for beginning and ending continuing calibrations. When the ending calibration meets criteria established for the beginning calibration, the average response factor from the initial calibration is used. When the ending calibration only meets the less stringent criteria specified for an ending calibration, the average of the response factor from the beginning and ending calibration is used for analyte and internal standard calculations. Affected samples are identified by the listing of both the beginning and ending calibration filename on the sample report.

The analytical data presented in this report are consistent with the guidelines of EPA Method 8290 Rev. 0 (9/94). Any exceptions have been discussed in the QC Remarks section of this case narrative with emphasis on their effect on the data. Should Del Mar Analytical have any questions or comments regarding this data package, please feel free to contact our Project Scientists at (919) 544-5729.

For Triangle Laboratories, Inc.,

Released by,

S.A Parikh 9/30/2000

Saroj A. Parikh
Report Preparation Chemist

The total number of pages in the data package is : 273 .

Method 8290 Sample Calculations:

Analyte Concentration

The concentration or amount of any analyte is calculated using the following expression.

$$C_{(\sigma)} = \frac{A_\sigma * Q_\beta}{A_\beta * RRF_{(\sigma)} * W}$$

Where:

$C_{(\sigma)}$	=	concentration or amount of a given analyte
A_σ	=	integrated current for the characteristic ions of the analyte
A_β	=	integrated current of the characteristic ions of the corresponding internal standard
Q_β	=	amount of internal standard added to the sample before extraction
$RRF_{(\sigma)}$	=	mean analyte relative response factor from the initial calibration
W	=	sample weight or volume

Detection Limits

The detection limit reported for a target analyte that is not detected or presents an analyte response that is less than 2.5 times the background level is calculated by using the following expression. The area of the analyte is replaced by the noise level measured in a region of the chromatogram clear of genuine GC signals. The detection limits represent the maximum possible concentration of a target analyte that could be present without being detected.

$$DL_{(\sigma)} = \frac{2.5 * H * Q_\beta}{H_\beta * RRF_{(\sigma)} * W}$$

Where:

$DL_{(\sigma)}$	=	estimated detection limit for a target analyte
2.5	=	minimum response required for a GC signal
H	=	sum heights of the noise
H_β	=	sum of peak heights of the characteristic ions of the corresponding internal standard
Q_β	=	amount of internal standard added to the sample before extraction
$RRF_{(\sigma)}$	=	mean analyte relative response factor from the initial calibration
W	=	sample weight or volume

Data Flags

In order to assist with data interpretation, data qualifier flags are used on the final reports. Please note that all data qualifier flags are subjective and are applied as consistently as possible. Each flag has been reviewed by two independent Chemists and the impact of the data qualifier flag on the quality of the data discussed above. The most commonly used flags are:

A **'B'** flag is used to indicate that an analyte has been detected in the laboratory method blank as well as in an associated field sample. The 'B' flag is used only when the concentration of analyte found in the sample is less than 20 times that found in the associated blank. This flag denotes possible contribution of background laboratory contamination to the concentration or amount of that analyte detected in the field sample.

An **'E'** flag is used to indicate a concentration based on an analyte to internal standard ratio which exceeds the range of the calibration curve. Values which are outside the calibration curve are estimates only.

An **'I'** flag is used to indicate labeled standards have been interfered with on the GC column by coeluting, interferent peaks. The interference may have caused the standard's area to be overestimated. All quantitations relative to this standard, therefore, may be underestimated.

A **'J'** flag is used to indicate a concentration based on an analyte to internal standard ratio which is below the calibration curve. Values which are outside the calibration curve are estimates only.

A **'PR'** flag is used to indicate that a GC peak is poorly resolved. This resolution problem may be seen as two closely eluting peaks without a reasonable valley between the peak tops, overly broad peaks, or peaks whose shapes vary greatly from a normal distribution. The concentrations or amounts reported for such peaks are most likely overestimated.

A **'Q'** flag is used to indicate the presence of QC ion instabilities caused by quantitative interferences.

An **'RO'** flag is used to indicate that a labeled standard has an ion abundance ratio that is outside of the acceptable QC limits, most likely due to a coeluting interference. This may have caused the percent recovery of the standard to be overestimated. All quantitations versus this standard, therefore, may be underestimated.

An **'S'** flag indicates that the response of a specific PCDD/PCDF isomer has exceeded the normal dynamic range of the mass spectrometer detection system. The corresponding signal is saturated and the reported analyte concentration is a 'minimum estimate'. When the 'S' qualifier is used in the reporting of 'totals', there is saturation of one (not

necessarily from a specific isomer) or more saturated signals for a given class of compounds. Results for saturated analytes are reported as greater than the upper calibration limit.

A **'U'** flag is used to indicate that a specific isomer cannot be resolved from a large, co-eluting interferent GC peak. The specific isomer is reported as not detected as a valid concentration cannot be determined. The calculated detection limit, therefore, should be considered an underestimated value.

A **'V'** flag is used to indicate that, although the percent recovery of a labeled standard may be below a specific QC limit, the signal-to-noise ratio of the peak is greater than ten-to-one. The standard is considered reliably quantifiable. All quantitations derived from the standard are considered valid as well.

An **'X'** flag is used to indicate that a polychlorodibenzofuran (PCDF) peak has eluted at the same time as the associated diphenyl ether (DPE) and that the DPE peak intensity is at least ten percent of the total PCDF peak intensity. Total PCDF values are flagged 'X' if the total DPE contribution to the total PCDF value is greater than ten percent. All PCDF peaks that are significantly influenced by the presence of DPE peaks are either reported as "estimated maximum possible concentration (EMPC) values without regard to the isotopic abundance ratio, or are included in the detection limit value depending on the analytical method.

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000573

CHAIN OF CUSTODY FORM

Page 1 of 1

Client Name/Address:	Project/PO Number:
Boeing C/o LT 601 S Glenoaks Blvd #314 Burbank	870071
Project Manager: Sally Bilodeau / John McMillan	**Phone Number:** 818 841 1160
Sampler: BKE / SLB	**Fax Number:** 818 846 9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: Dioxins (8280)	Special Instructions
PCS-29	Soil	4oz Jar	1	9/15/00 1030	NONE	X	DTSC Took Split Homogenize sample
PCS-30		4oz		1100		X	before analysis
PCS-31				1215		X	7 day TAT please
PCS-32				1120		X	
PCS-33B				1110		X	
CAC-100BE		8oz		1245		X	2' E. of CAC-89BE

Relinquished By: Brian K. Eyestone	Date/Time: 9/15/00 @ 1505	Received by:	Date/Time:
Relinquished By:	Date/Time:	Received by:	Date/Time:
Relinquished By:	Date/Time:	Received in Lab by:	Date/Time:

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days X
48 hours ____ normal ____

Sample Integrity: (Check)
intact ____ on ice ____

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SENT BY:818 846-9280 ; 9-15- 0 ; 4:07PM ; EMCON BURBANK→ 7142611228;# 2/ 2

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C104 (12 Diluted)

LABORATORY REPORT

Prepared For: IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502

IJI0778

Attention: Sally Bilodeau
Project: Boeing/Rocketdyne
870071

Sampled: 09/22/00
Received: 09/22/00
Reported: 09/25/00

This laboratory report is confidential and is intended for the sole use of Del Mar Analytical and its client. This entire report was reviewed and approved for release.

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AZ DHS License #AZ0428

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502
Attention: Sally Bilodeau

Client Project ID: Boeing/Rocketdyne 870071
Report Number: IJI0778

Sampled:09/22/00
Received:09/22/00

DATA QUALIFIERS AND DEFINITIONS

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

NR Not reported.

RPD Relative Percent Difference

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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2 - Perchlorates (24 hrs)

IJI0778 000574

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing c/o IT
601 S. Glenoaks Blvd. #314
Burbank, CA 91502

Project/PO Number: 670071

Project Manager: J. McMillan / B. Bilateau

Phone Number: (818) 841-1160

Sampler: B. Eytcheson

Fax Number: (818) 846-9280

Analysis Required

Invoice to Boeing
Results to Boeing and IT.

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Perchlorate	Special Instructions
PCS-34	Soil	9oz	1	9/22/00 @1405	none	X	*Please homogenize samples prior to analysis *
PCS-35	↓	↓	1	@1422	↓	X	

Relinquished By:	Date /Time:	Received by:	Date /Time:
Bryan K. Eytcheson	9/22/00 @ 14:52	Jason Ruiz	9/22/00 1452
Jason Ruiz	9/22/00 1705		
		Received in Lab by:	Date /Time:
		[illegible]	9-22-00 1705

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours X 5 days ____
48 hours ____ normal ____

Sample Integrity: (Check)
intact X on ice 4°C

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COC-GB

IJI0915

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3-C104

LABORATORY REPORT

Prepared For: IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502

Attention: Sally Bilodeau
Project: Boeing/Rocketdyne
870071

IJI0915

Sampled: 09/26/00
Received: 09/27/00
Reported: 09/28/00

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AZ DHS License #AZ0428

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502
Attention: Sally Bilodeau

Client Project ID: Boeing/Rocketdyne
870071
Report Number: IJI0915

Sampled:09/26/00
Received:09/27/00

DATA QUALIFIERS AND DEFINITIONS

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

NR Not reported.

RPD Relative Percent Difference

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
7277 Hayvenhurst, Suite B-12, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-9596 FAX (858) 505-9689

3- Perchlorates (24 hrs)

IJI0915

CHAIN OF CUSTODY FORM

Client Name/Address:
Boeing c/o IT Corp
601 S. Glenoaks Suite 314
Burbank CA 91502

Project/PO Number:
870071

Project Manager:
S. Bilodeau, J. McMillan

Phone Number:
818 841 1160

Sampler:
SWB

Fax Number:
818 846 9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date	Sampling Time	Preservatives	Analysis Required: Perchlorate	Special Instructions
PCS-39	Soil	4oz Jar	2	9/26/00	1620	NONE	X	West end trench
PCS-40	"	"	"	"	1645	"	X	25' from W end N side
PCS-41	"	"	"	"	1700	"	X	" S. side
								# Homogenized Sample

Relinquished By:	Date /Time:	Received by:	Date /Time:
Sally Bilodeau	9/27/00 1615	[signature]	9/27/00 1615
[signature]	9/27/00 1840	[signature]	Date /Time:
Relinquished By:	Date /Time:	Received in Lab by:	Date /Time:
[signature]		[signature]	9/27/00 1840

Turnaround Time: (Check)
same day RUSH — 72 hours ____
24 hours ____ — 5 days ____
48 hours ____ — normal ____

Sample Integrity: (Check)
intact X — on ice 4°

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

IJI0967

Del Mar Analytical

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY REPORT

Prepared For: IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502

~~IJI0970~~

Attention: Sally Bilodeau
Project: Boeing/Rocketdyne
870071

Sampled: 09/28/00
Received: 09/28/00
Reported: 10/02/00

This laboratory report is confidential and is intended for the sole use of Del Mar Analytical and its client. This entire report was reviewed and approved for release.

CA ELAP Certificate #1197
AZ DHS License #AZ0428

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502
Attention: Sally Bilodeau

Client Project ID: Boeing/Rocketdyne 870071
Report Number: IJI0967

Sampled:09/28/00
Received:09/28/00

DATA QUALIFIERS AND DEFINITIONS

M1 The sample required a dilution due to matrix interference. Because of this dilution, the matrix spike concentrations in the sample were reduced to a level where the recovery calculation does not provide useful information. See Blank Spike (LCS).

Z3 The sample required a dilution due to the nature of the sample matrix. Because of this dilution, the surrogate spike concentration in the sample was reduced to a level where the recovery calculation does not provide useful information.

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

NR Not reported.

RPD Relative Percent Difference

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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CHAIN OF CUSTODY FORM

000580 / of 1

Page 2 of 2

Client Name/Address:
Boeing % IT Corp
601 South Glenoaks Blvd, Ste 314
Burbank, CA 91502

Project/PO Number:
870071

Project Manager:
Kelly Bilodeau, John McMillan

Phone Number:
(818) 841-1160

Sampler:
BKE

Fax Number:
(818) 846-9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: PCB's	Perchlorate								Special Instructions
[redacted] PC-42	Soil	[redacted] Jar	1	01/28/00 15:30 ~~PDT~~	None	X									Homogenize samples prior to [redacted] analysis
PC-43	Soil	[redacted] Jar	1	01/28/00 14:21	None	X									
PCS-43		9oz Jar	1	01/28/00			X								
PCS-44				01/28/00			X								
PCS-45				01/28/00			X								

Relinquished By:	Date /Time:	Received by:	Date /Time:
Brian K. Eylander	9/28/00 @1605	[signature]	9/28/ 1605
[signature]	9/28/00 1830	[signature]	Date /Time:
Relinquished By:	Date /Time:	Received in Lab by: [signature]	Date /Time: 9-28-00 18:30

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours X normal ____

Sample Integrity: (Check)
intact X on ice 3°

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (602) 785-0043 FAX (602) 785-0851
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

000581

CHAIN OF CUSTODY FORM

Client Name/Address:
Boeing c/o IT Corp
601 South Glenoaks Blvd. Ste 314
Burbank, CA 91502

Project/PO Number:
870071

Project Manager:
Sally Bilodeau/John McMillan

Phone Number:
(818) 841-1160

Sampler:
BKE

Fax Number:
(818) 846-9290

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: Dioxins	Special Instructions
BR-22-3-18	Bedrock	4oz Jar	1	04/28/00 9:51	None	X	Homogenize samples prior to analysis
BR-23-3-17				04/28/00 10:02			Sample taken in shale
BR-23-3-17D				04/28/00 10:01			
BR-24-3-13				04/28/00 10:09			
BR-25-3-11				04/28/00 10:20			
BR-26-4-21				04/28/00 10:55			Charred Organic Material in vicinity of sample - DTSC
BR-27-4-19				04/28/00 11:05			
BR-28-4-18				04/28/00 11:15			
BR-29-4-17				04/28/00 11:25			
BR-30-4-16				04/28/00 12:16			
BR-31-4-15				04/28/00 12:22			
BR-32-4-14				04/28/00 12:33			
BR-33-4-13				04/28/00 12:35			
BR-34-4-12				04/28/00 12:43			

Relinquished By: Brian K. Eschler Date /Time: 9/28/00 @1605
Received by: Date /Time: 9/28/00 1605

Relinquished By: Date /Time: 9/28/00 1830
Received by: Date /Time:

Relinquished By: Date /Time:
Received in Lab by: Nicole Jackson Date /Time: 9-28-00 18:30

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice 5°

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (602) 785-0043 FAX (602) 785-0851
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

000582

CHAIN OF CUSTODY FORM

Client Name/Address:
Boeing c/o IT Corp
601 South Glenoaks Blvd. Ste 314
Burbank, CA 91502

Project/PO Number:
870071

Project Manager:
Sally Bilodeau, John McMillan

Phone Number:
(818) 841-1160

Sampler:
BKE

Fax Number:
(818) 846-9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: Dioxins	Special Instructions
PC-42	Soil	4oz Jar	1	04/28/00 15:30 ~~HT80~~	None	X	Homogenize Samples prior to analysis
PC-43	Soil	4oz Jar	1	04/29/00 14:21	None	X	

Relinquished By: [signature] Date /Time: 9/28/00 @ 1605
Received by: [signature] Date /Time: 9/28/00 1605

Relinquished By: [signature] Date /Time: 9/28/00 1830
Received by: Date /Time:

Relinquished By: Date /Time:
Received in Lab by: [signature] Date /Time: 9-28-00 18:30

Turnaround Time: (Check) → 7 Days! ← (this page)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice 5°

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

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125 Sherman Way, Suite C-11, Van Nuys, CA 91406 (818) 779-1844 FAX (818) 779-1843
930 South 51st St., Suite B-120, Phoenix, AZ 85044 (602) 785-0043 FAX (602) 785-0851
4 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

IJI0967

000580

CHAIN OF CUSTODY FORM

ent Name/Address:
Weiss % IT Corp
301 South Glenoaks Blvd, Ste 314
Burbank, CA 91502

Project/PO Number:
870071

oject Manager:
Kelly Pritchett, John McMillan

Phone Number:
(818) 841-1160

mpler:
BKL

Fax Number:
(818) 846-9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	PCB's	Perchlorate	Homogenize samples prior to analysis
PC-42	Soil	4oz Jar	1	01/28/00 15:30	None	X		
PC-43	Soil	4oz Jar	1	01/28/00 14:21	None	X		
PCS-43		4oz Jar	1	01/28/00			X	
PCS-44				01/28/00			X	
PCS-45				01/28/00			X	

Special Instructions

elinquished By: Date /Time: Received by: Date /Time:
9/28/00 @1605 9/28/ 1605

elinquished By: Date /Time: Received by: Date /Time:
9/28/00 1830

elinquished By: Date /Time: Received in Lab by: Date /Time:
9-28-00 18:30

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours X normal ____

Sample Integrity: (Check)
intact X on ice 3°

ote: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is ue within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

DEL MAR ANALYTICAL 949 261 1228 P.02/02

CASE NARRATIVE

Analysis of Samples for the Presence of

Polychlorinated Dibenzo-*p*-Dioxins and Dibenzofurans by

High-Resolution Chromatography / High-Resolution Mass Spectrometry

Method 8290 Rev. 0 (9/94)

Date:	October 9, 2000
Client ID:	Del Mar Analytical
P.O. Number:	IJI0970
TLI Project Number:	52004

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Rev. 11/19/97

Overview

The sample(s) and associated QC samples were extracted and analyzed according to procedures described in EPA Method 8290 Rev. 0 (9/94). Any particular difficulties encountered during the sample handling by Triangle Laboratories will be discussed in the QC Remarks section below. This report contains results from only the 8290 dioxin/furan analyses of the soil sample(s).

Quality Control Samples

A laboratory method blank, identified as the TLI Blank, was prepared along with the sample(s).

Laboratory control spike (LCS) and laboratory control spike duplicate (LCSD) samples were extracted and analyzed along with the samples. A report summarizing the analyte recoveries and relative percent differences for these samples is included in the data package.

Quality Control Remarks

This release of this particular set of Del Mar Analytical analytical data by Triangle Laboratories was authorized by the Quality Control Chemist who has reviewed each sample data package following a series of inspections/reviews. When applicable, general deviations from acceptable QC requirements are identified below and comments are made on the effect of these deviations upon the validity and reliability of the results. Specific QC issues associated with this particular project are:

Sample receipt: Fourteen soil sample(s) were received from Del Mar Analytical at 7.0 °C in good condition on October 2, 2000 and stored in a refrigerator at 4 °C.

Sample Preparation Laboratory: None

Mass Spectrometry: None

Data Review: None

Other Comments: No 2,3,7,8-substituted target analytes were detected in the method blank above the target detection limit (TDL).

Method 8290 contains separate criteria for beginning and ending continuing calibrations. When the ending calibration meets criteria established for the beginning calibration, the average response factor from the initial calibration is used. When the ending calibration only meets the less stringent criteria specified for an ending calibration, the average of the response factor from the beginning and ending calibration is used for analyte and internal standard calculations. Affected samples are identified by the listing of both the beginning and ending calibration filename on the sample report.

The analytical data presented in this report are consistent with the guidelines of EPA Method 8290 Rev. 0 (9/94). Any exceptions have been discussed in the QC Remarks section of this case narrative with emphasis on their effect on the data. Should Del Mar Analytical have any questions or comments regarding this data package, please feel free to contact our Project Scientist, Mary McDonald, at 919/544-5729 ext. 269.

For Triangle Laboratories, Inc.,

Released by,

Vijay S. Chheda

Report Preparation Chemist

The total number of pages in the data package is : 468.

CASE NARRATIVE

Analysis of Samples for the Presence of

Polychlorinated Dibenzo-*p*-Dioxins and Dibenzofurans by

High-Resolution Chromatography / High-Resolution Mass Spectrometry

Method 8290 Rev. 0 (9/94)

Date:	October 12, 2000
Client ID:	Del Mar Analytical
P.O. Number:	IJI0970
TLI Project Number:	52003r1

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Rev. 11/19/97

Overview

The samples and associated QC samples were extracted and analyzed according to procedures described in EPA Method 8290 Rev. 0 (9/94). Any particular difficulties encountered during the sample handling by Triangle Laboratories will be discussed in the QC Remarks section below. This report contains results from only the 8290 dioxin/furan analysis of the soil samples.

Quality Control Samples

A laboratory method blank, identified as the TLI Blank, was prepared along with the samples.

Laboratory control spike (LCS) and laboratory control spike duplicate (LCSD) samples were extracted and analyzed along with the samples. A report summarizing the analyte recoveries and relative percent differences for these samples is included in the data package.

Quality Control Remarks

This release of this particular set of Del Mar Analytical analytical data by Triangle Laboratories was authorized by the Quality Control Chemist who has reviewed each sample data package following a series of inspections/reviews. When applicable, general deviations from acceptable QC requirements are identified below and comments are made on the effect of these deviations upon the validity and reliability of the results. Specific QC issues associated with this particular project are:

Sample receipt: Two soil samples were received from Del Mar Analytical at 7°C in good condition on October 2, 2000, and stored in a refrigerator at 4°C.

Sample Preparation Laboratory: None

Mass Spectrometry: None

Data Review: None

Other Comments: No 2,3,7,8-substituted target analytes were detected in the method blank above the target detection limit (TDL).

Method 8290 contains separate criteria for beginning and ending continuing calibrations. When the ending calibration meets criteria established for the beginning calibration, the average response factor from the initial calibration is used. When the ending calibration only meets the less stringent criteria specified for an ending calibration, the average of the

response factor from the beginning and ending calibration is used for analyte and internal standard calculations. Affected samples are identified by the listing of both the beginning and ending calibration filename on the sample report.

The analytical data presented in this report are consistent with the guidelines of EPA Method 8290 Rev. 0 (9/94). Any exceptions have been discussed in the QC Remarks section of this case narrative with emphasis on their effect on the data. Should Del Mar Analytical have any questions or comments regarding this data package, please feel free to contact a Project Scientist at (919) 544-5729.

For Triangle Laboratories, Inc.,

Released by,

Kenneth Varley

Report Preparation Chemist

The total number of pages in the data package is : 191 .

IJJ0179

Del Mar Analytical

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2 - PCB
2 - HS
2 - C104
2 - DF

LABORATORY REPORT

Prepared For: IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502

~~IJJ0178~~

Attention: Sally Bilodeau
Project: Boeing/Rocketdyne
870071

Sampled: 10/04/00
Received: 10/05/00
Reported: 10/16/00

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AZ DHS License #AZ0428

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502
Attention: Sally Bilodeau

Client Project ID: Boeing/Rocketdyne 870071
Report Number: IJJ0179

Sampled: 10/04/00
Received: 10/05/00

DATA QUALIFIERS AND DEFINITIONS

R The RPD exceeded the method control limit due to sample matrix effects. The individual analyte QA/QC recoveries, however, were within acceptance limits.

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

NR Not reported.

RPD Relative Percent Difference

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

000583

CHAIN OF CUSTODY FORM

Page 1 of 1

Client Name/Address: Boeing c/o IT
6015. Glenoaks Blvd. #314
Burbank, CA 91502

Project/PO Number: 670071

Project Manager: J. McMillan/S. Bilodeau

Phone Number: (858) 841-1160

Sampler: BKE

Fax Number: (818) 846-9258

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Perchlorate	PCBs (8082)	TO-14A Hg (7470A)							Special Instructions
PCS-46B	Soil	9oz	1	10/4/00 1310	none	X	X	X							* Please homogenize
PCS-47B	↓	↓	1	1315	↓	X	X	X							samples prior to
BR-35	↓	↓	1	↓ 1350	↓	X	X	X							analysis *

Analysis Required

Invoice to Boeing
Results to IT + Boeing.

Relinquished By:	Date /Time:	Received by:	Date /Time:
Brian K. Eyestone	10/4/00 @ 16:45	[illegible] FEDEX	10/5/00 945
[illegible]	10/5/00 1230	[illegible]	10/5/00 1230
[illegible]	10/5/00 1750	[illegible]	10-5-00 1750

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal X

Sample Integrity: (Check)
intact X on ice 4°C

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

Del Mar Analytical
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9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (619) 505-9596 FAX (619) 505-9689

000584

CHAIN OF CUSTODY FORM

Page 1 of 1

Client Name/Address: Boeing % IT
6015. Glenoaks Blvd. #314
Burbank, CA 91502

Project/PO Number: S70071

Project Manager: J. McMillan / S. Bilodeau

Phone Number: (818)841-1160

Sampler: BRE

Fax Number: (818)846-9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: Dioxins (8290)	Special Instructions
PCS-46B	Soil	9oz	1	10/4/00 1310	none	X	*Please homogenize
PCS-47B	↓	↓	1	1315	↓	X	samples prior to
BR-35	↓	↓	1	↓ 1350	↓	X	analysis *

Results to Boeing + IT, ~~[illegible]~~

Relinquished By:	Date /Time:	Received by:	Date /Time:
Brian K. Eytcheson	10/4/00 @ 16:45	DMAN	10/5/00 945
[signature]	10/5/00 1230	[signature]	10/5/00 1230
[signature]	10/5/00 1750	[signature]	10-5-00 1750

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours ____ 5 days ____
48 hours ____ normal √

Sample Integrity: (Check)
intact X on ice 4°C

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

CASE NARRATIVE

Analysis of Samples for the Presence of

Polychlorinated Dibenzo-*p*-Dioxins and Dibenzofurans by

High-Resolution Chromatography / High-Resolution Mass Spectrometry

Method 8290 Rev. 0 (9/94)

Date:	October 18, 2000
Client ID:	Del Mar Analytical
P.O. Number:	IJJ0178
TLI Project Number:	52059

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Rev. 11/19/97

Overview

The samples and associated QC samples were extracted and analyzed according to procedures described in EPA Method 8290 Rev. 0 (9/94). Any particular difficulties encountered during the sample handling by Triangle Laboratories will be discussed in the QC Remarks section below. This report contains results from only the 8290 dioxin/furan analyses of the soil samples.

Quality Control Samples

A laboratory method blank, identified as the TLI Blank, was prepared along with the samples.

Laboratory control spike (LCS) and laboratory control spike duplicate (LCSD) samples were extracted and analyzed along with the samples. A report summarizing the analyte recoveries and relative percent differences for these samples is included in the data package.

Quality Control Remarks

This release of this particular set of Del Mar Analytical analytical data by Triangle Laboratories was authorized by the Quality Control Chemist who has reviewed each sample data package following a series of inspections/reviews. When applicable, general deviations from acceptable QC requirements are identified below and comments are made on the effect of these deviations upon the validity and reliability of the results. Specific QC issues associated with this particular project are:

Sample receipt: Three soil samples were received from Del Mar Analytical at 4.0 °C in good condition on October 7, 2000 and stored in a refrigerator at 4 °C.

Sample Preparation Laboratory: None

Mass Spectrometry: None

Data Review: None

Other Comments: No 2,3,7,8-substituted target analytes were detected in the method blank above the target detection limit (TDL).

Method 8290 contains separate criteria for beginning and ending continuing calibrations. When the ending calibration meets criteria established for the beginning calibration, the average response factor from the initial calibration is used. When the ending calibration only meets the less stringent criteria specified for an ending calibration, the average of the response factor from the beginning and ending calibration is used for analyte and internal standard calculations. Affected samples are identified by the listing of both the beginning and ending calibration filename on the sample report.

The analytical data presented in this report are consistent with the guidelines of EPA Method 8290 Rev. 0 (9/94). Any exceptions have been discussed in the QC Remarks section of this case narrative with emphasis on their effect on the data. Should Del Mar Analytical have any questions or comments regarding this data package, please feel free to contact a Project Scientist, at (919) 544-5729.

For Triangle Laboratories, Inc.,

Released by,

Kenneth Varley

Kenneth Varley

Report Preparation Chemist

The total number of pages in the data package is : 231 .

Method 8290 Sample Calculations:

Analyte Concentration

The concentration or amount of any analyte is calculated using the following expression.

$$C_{(\sigma)} = \frac{A_\sigma * Q_\beta}{A_\beta * RRF_{(\sigma)} * W}$$

Where:

$C_{(\sigma)}$	=	concentration or amount of a given analyte
A_σ	=	integrated current for the characteristic ions of the analyte
A_β	=	integrated current of the characteristic ions of the corresponding internal standard
Q_β	=	amount of internal standard added to the sample before extraction
$RRF_{(\sigma)}$	=	mean analyte relative response factor from the initial calibration
W	=	sample weight or volume

Detection Limits

The detection limit reported for a target analyte that is not detected or presents an analyte response that is less than 2.5 times the background level is calculated by using the following expression. The area of the analyte is replaced by the noise level measured in a region of the chromatogram clear of genuine GC signals. The detection limits represent the maximum possible concentration of a target analyte that could be present without being detected.

$$DL_{(\sigma)} = \frac{2.5 * H * Q_\beta}{H_\beta * RRF_{(\sigma)} * W}$$

Where:

$DL_{(\sigma)}$	=	estimated detection limit for a target analyte
2.5	=	minimum response required for a GC signal
H	=	sum heights of the noise
H_β	=	sum of peak heights of the characteristic ions of the corresponding internal standard
Q_β	=	amount of internal standard added to the sample before extraction
$RRF_{(\sigma)}$	=	mean analyte relative response factor from the initial calibration
W	=	sample weight or volume

Data Flags

In order to assist with data interpretation, data qualifier flags are used on the final reports. Please note that all data qualifier flags are subjective and are applied as consistently as possible. Each flag has been reviewed by two independent Chemists and the impact of the data qualifier flag on the quality of the data discussed above. The most commonly used flags are:

A **'B'** flag is used to indicate that an analyte has been detected in the laboratory method blank as well as in an associated field sample. The 'B' flag is used only when the concentration of analyte found in the sample is less than 20 times that found in the associated blank. This flag denotes possible contribution of background laboratory contamination to the concentration or amount of that analyte detected in the field sample.

An **'E'** flag is used to indicate a concentration based on an analyte to internal standard ratio which exceeds the range of the calibration curve. Values which are outside the calibration curve are estimates only.

An **'I'** flag is used to indicate labeled standards have been interfered with on the GC column by coeluting, interferent peaks. The interference may have caused the standard's area to be overestimated. All quantitations relative to this standard, therefore, may be underestimated.

A **'J'** flag is used to indicate a concentration based on an analyte to internal standard ratio which is below the calibration curve. Values which are outside the calibration curve are estimates only.

A **'PR'** flag is used to indicate that a GC peak is poorly resolved. This resolution problem may be seen as two closely eluting peaks without a reasonable valley between the peak tops, overly broad peaks, or peaks whose shapes vary greatly from a normal distribution. The concentrations or amounts reported for such peaks are most likely overestimated.

A **'Q'** flag is used to indicate the presence of QC ion instabilities caused by quantitative interferences.

An **'RO'** flag is used to indicate that a labeled standard has an ion abundance ratio that is outside of the acceptable QC limits, most likely due to a coeluting interference. This may have caused the percent recovery of the standard to be overestimated. All quantitations versus this standard, therefore, may be underestimated.

An 'S' flag indicates that the response of a specific PCDD/PCDF isomer has exceeded the normal dynamic range of the mass spectrometer detection system. The corresponding signal is saturated and the reported analyte concentration is a 'minimum estimate'. When the 'S' qualifier is used in the reporting of 'totals', there is saturation of one (not

necessarily from a specific isomer) or more saturated signals for a given class of compounds. Results for saturated analytes are reported as greater than the upper calibration limit.

A '**U**' flag is used to indicate that a specific isomer cannot be resolved from a large, co-eluting interferent GC peak. The specific isomer is reported as not detected as a valid concentration cannot be determined. The calculated detection limit, therefore, should be considered an underestimated value.

A '**V**' flag is used to indicate that, although the percent recovery of a labeled standard may be below a specific QC limit, the signal-to-noise ratio of the peak is greater than ten-to-one. The standard is considered reliably quantifiable. All quantitations derived from the standard are considered valid as well.

An '**X**' flag is used to indicate that a polychlorodibenzofuran (PCDF) peak has eluted at the same time as the associated diphenyl ether (DPE) and that the DPE peak intensity is at least ten percent of the total PCDF peak intensity. Total PCDF values are flagged 'X' if the total DPE contribution to the total PCDF value is greater than ten percent. All PCDF peaks that are significantly influenced by the presence of DPE peaks are either reported as "estimated maximum possible concentration (EMPC) values without regard to the isotopic abundance ratio, or are included in the detection limit value depending on the analytical method.

IJK0373

Del Mar Analytical

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851

LABORATORY REPORT

Prepared For: IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502

Attention: Sally Bilodeau
Project: Boeing/Rocketdyne
870071

Sampled: 11/09/00
Received: 11/09/00
Reported: 11/10/00

This laboratory report is confidential and is intended for the sole use of Del Mar Analytical and its client. This entire report was reviewed and approved for release.

CA ELAP Certificate #1197
AZ DHS License #AZ0428

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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IT Corporation/Emcon - Burbank
601 S. Glenoaks Boulevard, Suite 314
Burbank, CA 91502
Attention: Sally Bilodeau

Client Project ID: Boeing/Rocketdyne 870071
Report Number: IJK0373

Sampled: 11/09/00
Received: 11/09/00

DATA QUALIFIERS AND DEFINITIONS

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

NR Not reported.

RPD Relative Percent Difference

Del Mar Analytical, Irvine
Pat Abe
Project Manager

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000585

CHAIN OF CUSTODY FORM

Client Name/Address: Boeing/Rocketdyne
c/o The IT Group
601 S. Glenoaks Blvd. #314
Burbank, CA 91502

Project/PO Number: 870071

Project Manager: J. McMillan/S. Bilodeau

Phone Number: (818) 841-1160

Sampler: BKE

Fax Number: (818) 846-9280

Sample Description	Sample Matrix	Container Type	# of Cont.	Sampling Date/Time	Preservatives	Analysis Required: PCBs	Special Instructions
Brandeis-1	Soil	4oz	1	11/9/00/0915	none	X	
Brandeis-1D	↓	↓	1	/0916	↓	X	
Brandeis-2	↓	↓	1	↓/0920	↓	X	

Relinquished By: Brian K. Eldridge Date/Time: 11/9/00/1035
Received by: Josa Ruiz Date/Time: 11/9/00 1230

Relinquished By: Josa Ruiz Date/Time: 11/9/00 1440
Received by: Date/Time:

Relinquished By: Date/Time:
Received in Lab by: Date/Time: 11/9/00 1440

Turnaround Time: (Check)
same day ____ 72 hours ____
24 hours X (ASAP) 5 days ____
48 hours ____ normal ____

Sample Integrity: (Check) 4°C
intact ✓ on ice ____

Note: By relinquishing samples to Del Mar Analytical, client agrees to pay for the services requested on this chain of custody form and any additional analyses performed on this project. Payment for services is due within 30 days from the date of invoice. Sample(s) will be disposed of after 30 days.

COC-GB

CHAIN OF CUSTODY RECORD

BOEING

COC # MJ838
LAB SDG #

Page: 1 of 2 EVL

Customer Information		Project Information		Project Information	
Site:	Boeing-SSFL	Client:	Boeing/NASA/DOE	Sampler:	Joan Dolmat
Company:	MWH	Sampling Event:	Vapor Migration Study	Contact #:	714-875-7939
Report to:	Lisa Tucker	Project. No.	189160.011202	Requested Analyses	Instructions/TAT
Address:	9444 Farnham Street	Project Manager:	Dixie Hambrick		
	Suite 300	PM Contact #	626-568-6348		
	San Diego, CA 92123	Field Contact:	Eric Vandervelde		
Email:	boeingedms@ch2m.com	Field Contact #	818.391.4247		
	lisa.tucker@mwhglobal.com	Lab Contact/PM:	Steve Hoyt / EAS, Inc		
		Lab Address:	173 Cross Street, San Luis Obispo, CA		
		Lab Phone:	805.781.3585		

No.	Sample ID	Description (for MWH use only)	Matrix	Date	Time	Preserv.	Cont. Type	No. of Containers	Field Filtered?	TO-15 SIM	EPA 8260 VOCs	Geotech	HOLD VOCs	Instructions/TAT
1	MJ838	BTBS02SO1	SOIL	7/27/06	852	—	SS	5			X	X		*Geotech Parameters ASTM D2216-98 ASTM D2937-00e1 ASTM D854-02 ASTM 854/2397 ASTM 5084-03
2	MJ839	BTBS02SO2	SOIL	7/27/06	958	—	SS	5			X	X		5'
3	MJ840	BTBS02SO3	SOIL	7/27/06	1023	—	SS	5			X	X		10'
4	MJ841	BTBS02SO4	SOIL	7/27/06	1049	—	SS	5				X	X	15' wet
5	MJ842	FSBS01SO1	SOIL	7/27/06	1152	—	SS	5				X	X	19' wet
6	MJ843	FSBS01SO2	SOIL	7/27/06	1317	—	SS	5			X	X		4'
7	MJ844	BZBS01SD1	SOIL	7/27/06	1430	—	SS	5			X	X		7'
8	MJ845	BZBS01SD2	SOIL	7/27/06	1455	—	SS	5			X	X		5'
9	MJ846	BZBS01SO3	SOIL	7/27/06	1518	—	SS	2			X	X		10'
10	MJ847	BZCLBS85SO1 EW	SOIL	7/27/06	1600	—	SS	5			X	X		15' Collect Encore sample 5'

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
J Dolmat	7/27/06	[signature]	7/27/06	[signature]	7/27/06	[signature]	7-27-06
Company: MWH	Time: 1338	Company: MWH	Time: 1339	Company: MWH	Time: 1722	Company: TGS America	Time: 1722

Comments:
MJ846 - Please take 3 Encore samples from one of the stainless steel tubes

Geotracker EDF ☐ Standard TAT [X]
Data Validation Package [X] Level IV Rush TAT Indicate Above

Rev 7/06

Rel Joan Dolmat 7-27-06 1935 Rec
Rec 7/27/06 1935 4°C

CHAIN OF CUSTODY RECORD

COC # MJ848
LAB SDG #

BOEING

Page: 2 of 2 EW

Customer Information		Project Information		Project Information	
Site:	Boeing-SSFL	Client:	Boeing/NASA/DOE	Sampler:	Eric Vandervelde
Company:	MWH	Sampling Event:	Vapor Migration Study	Contact #:	818 391-4247
Report to:	Lisa Tucker	Project. No.	109116D.011.00.02	Requested Analyses	Instructions/TAT
Address:	9444 Farnham Street	Project Manager:	Dixie Hambrick		
	Suite 300	PM Contact #	626-568-6348		
	San Diego, CA 92123	Field Contact:	Eric Vandervelde		
Email:	boeingedms@ch2m.com	Field Contact #	818.391.4247		
	lisa.tucker@mwhglobal.com	Lab Contact/PM:	Steve Hoyt / EAS, Inc		
		Lab Address:	173 Cross Street, San Luis Obispo, CA		
		Lab Phone:	805.781.3585		

No.	Sample ID	Description (for MWH use only)	Matrix	Date	Time	Preserv.	Cont. Type	No. of Containers	Field Filtered?	TO-15 SIM	EPA 8260B	Geotech Parameters	HOLD	Geotech Parameters* ASTM D2216-98 ASTM D2937-00 ASTM D854-02 ASTM D854/2397 ASTM 5084-03
1	MJ848	CLBSS85502	SO	7/27/06	1620	—	SS	4	—		X	X		
2	MJ849	CLBSS85503	SO	7/27/06	1640	—	SS	2	—		X	X		— Take Encore samples from stainless steel tubes
3	MJ850	CLBSS85D01	SO	7/27/06	1640	—	SS	01	—		X			
4	MJ851	CLBSS85E01	W	7/27/06	1650	—	VOA	3	—		X			— Take Encores from stainless steel tubes
5	MJ852	CLBSS85TB1	W	7/27/06	1654	—	VOA	1	—		X			
6														
7														
8														
9														
10														

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
Company: MWH	Time: 1722	Company: Test America	Time: 1722	Company: Test America	Time: 1935	Company:	Time:

Comments: MJ849 & MJ850 Please take 3 Encores ea. out of each Stainless steel tube.

Geotracker EDF ☐ Standard TAT [X]

Data Validation Package [X] Level IV Rush TAT Indicate Above

Rev 7/06

Rec: 7/27/06 1935 4°C

TestAmerica
ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project: LOX WPAA
Boeing SSFL

Sampled: 07/27/06
Received: 07/27/06
Issued: 08/10/06 17:37

NELAP #01108CA California ELAP#1197 CSDLAC #10117

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.
This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT:	Samples were received intact, at 4°C, on ice and with chain of custody documentation.
HOLDING TIMES:	All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.
PRESERVATION:	Samples requiring preservation were verified prior to sample analysis.
QA/QC CRITERIA:	All analyses met method criteria, except as noted in the report with data qualifiers.
COMMENTS:	Results that fall between the MDL and RL are 'J' flagged.
SUBCONTRACTED:	Refer to the last page for specific subcontract laboratory information included in this report.
ADDITIONAL INFORMATION:	Enclosed are partial results. Results for the geophysical analyses are pending.

LABORATORY ID	CLIENT ID	MATRIX
IPG2469-01	MJ838	Soil
IPG2469-02	MJ839	Soil
IPG2469-03	MJ840	Soil
IPG2469-04	MJ841	Soil
IPG2469-05	MJ842	Soil
IPG2469-06	MJ843	Soil
IPG2469-07	MJ844	Soil
IPG2469-08	MJ845	Soil
IPG2469-09	MJ846	Soil
IPG2469-10	MJ847	Soil

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION
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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: LOX WPAA
Boeing SSFL
Report Number: IPG2469

Sampled: 07/27/06
Received: 07/27/06

LABORATORY ID	CLIENT ID	MATRIX
IPG2469-11	MJ848	Soil
IPG2469-12	MJ849	Soil
IPG2469-13	MJ850	Soil
IPG2469-14	MJ851	Water
IPG2469-15	MJ852	Water

Reviewed By:

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: LOX WPAA
Boeing SSFL
Report Number: IPG2469

Sampled: 07/27/06
Received: 07/27/06

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6H01010 Extracted: 08/01/06											
Blank Analyzed: 08/01/2006 (6H01010-BLK1)											
Benzene	ND	2.0	0.28	ug/l							
Bromobenzene	ND	5.0	0.27	ug/l							
Bromochloromethane	ND	5.0	0.32	ug/l							
Bromodichloromethane	ND	2.0	0.30	ug/l							
Bromoform	ND	5.0	0.32	ug/l							
Bromomethane	ND	5.0	0.42	ug/l							
n-Butylbenzene	ND	5.0	0.37	ug/l							
sec-Butylbenzene	ND	5.0	0.25	ug/l							
tert-Butylbenzene	ND	5.0	0.22	ug/l							
Carbon tetrachloride	ND	5.0	0.28	ug/l							
Chlorobenzene	ND	2.0	0.36	ug/l							
Chloroethane	ND	5.0	0.40	ug/l							
Chloroform	ND	2.0	0.33	ug/l							
Chloromethane	ND	5.0	0.30	ug/l							
2-Chlorotoluene	ND	5.0	0.28	ug/l							
4-Chlorotoluene	ND	5.0	0.29	ug/l							
Dibromochloromethane	ND	2.0	0.28	ug/l							
1,2-Dibromo-3-chloropropane	ND	5.0	0.92	ug/l							
1,2-Dibromoethane (EDB)	ND	2.0	0.32	ug/l							
Dibromomethane	ND	2.0	0.36	ug/l							
1,2-Dichlorobenzene	ND	2.0	0.32	ug/l							
1,3-Dichlorobenzene	ND	2.0	0.35	ug/l							
1,4-Dichlorobenzene	ND	2.0	0.37	ug/l							
Dichlorodifluoromethane	ND	5.0	0.79	ug/l							
1,1-Dichloroethane	ND	2.0	0.27	ug/l							
1,2-Dichloroethane	ND	2.0	0.28	ug/l							
1,1-Dichloroethene	ND	5.0	0.42	ug/l							
cis-1,2-Dichloroethene	ND	2.0	0.32	ug/l							
trans-1,2-Dichloroethene	ND	2.0	0.27	ug/l							
1,2-Dichloropropane	ND	2.0	0.35	ug/l							
1,3-Dichloropropane	ND	2.0	0.32	ug/l							
2,2-Dichloropropane	ND	2.0	0.34	ug/l							
1,1-Dichloropropene	ND	2.0	0.28	ug/l							
cis-1,3-Dichloropropene	ND	2.0	0.22	ug/l							
trans-1,3-Dichloropropene	ND	2.0	0.32	ug/l							

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: LOX WPAA
Boeing SSFL
Report Number: IPG2469

Sampled: 07/27/06
Received: 07/27/06

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6H01010 Extracted: 08/01/06											
Blank Analyzed: 08/01/2006 (6H01010-BLK1)											
Ethylbenzene	ND	2.0	0.25	ug/l							
Hexachlorobutadiene	ND	5.0	0.38	ug/l							
Isopropylbenzene	ND	2.0	0.25	ug/l							
p-Isopropyltoluene	ND	2.0	0.28	ug/l							
Methylene chloride	ND	5.0	0.70	ug/l							
Naphthalene	ND	5.0	0.41	ug/l							
n-Propylbenzene	ND	2.0	0.27	ug/l							
Styrene	ND	2.0	0.16	ug/l							
1,1,1,2-Tetrachloroethane	ND	5.0	0.27	ug/l							
1,1,2,2-Tetrachloroethane	ND	2.0	0.24	ug/l							
Tetrachloroethene	ND	2.0	0.32	ug/l							
Toluene	ND	2.0	0.36	ug/l							
1,2,3-Trichlorobenzene	ND	5.0	0.45	ug/l							
1,2,4-Trichlorobenzene	ND	5.0	0.48	ug/l							
1,1,1-Trichloroethane	ND	2.0	0.30	ug/l							
1,1,2-Trichloroethane	ND	2.0	0.30	ug/l							
Trichloroethene	ND	2.0	0.26	ug/l							
Trichlorofluoromethane	ND	5.0	0.34	ug/l							
1,2,3-Trichloropropane	ND	10	0.40	ug/l							
1,2,4-Trimethylbenzene	ND	2.0	0.23	ug/l							
1,3,5-Trimethylbenzene	ND	2.0	0.26	ug/l							
Vinyl chloride	ND	5.0	0.26	ug/l							
o-Xylene	ND	2.0	0.30	ug/l							
m,p-Xylenes	ND	2.0	0.60	ug/l							
Surrogate: Dibromofluoromethane	*22.6*			*ug/l*	*25.0*		*90*	*80-120*			
Surrogate: Toluene-d8	*27.1*			*ug/l*	*25.0*		*108*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*26.8*			*ug/l*	*25.0*		*107*	*80-120*			

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Michele Chamberlin
Project Manager

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Attention: Lisa J. Tucker

Project ID: LOX WPAA
Boeing SSFL
Report Number: IPG2469

Sampled: 07/27/06
Received: 07/27/06

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6H01010 Extracted: 08/01/06											
LCS Analyzed: 08/01/2006 (6H01010-BS1)											
1,1-Dichloroethene	22.7	5.0	0.42	ug/l	25.0		91	70-130			
cis-1,2-Dichloroethene	23.2	2.0	0.32	ug/l	25.0		93	65-125			
trans-1,2-Dichloroethene	24.0	2.0	0.27	ug/l	25.0		96	65-130			
Tetrachloroethene	26.8	2.0	0.32	ug/l	25.0		107	65-125			
Trichloroethene	21.6	2.0	0.26	ug/l	25.0		86	70-125			
Vinyl chloride	34.1	5.0	0.26	ug/l	25.0		136	50-130			*L*
Surrogate: Dibromofluoromethane	*24.5*			*ug/l*	*25.0*		*98*	*80-120*			
Surrogate: Toluene-d8	*27.7*			*ug/l*	*25.0*		*111*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*27.6*			*ug/l*	*25.0*		*110*	*80-120*			
Matrix Spike Analyzed: 08/01/2006 (6H01010-MS1)						**Source: IPG2515-01RE1**					
1,1-Dichloroethene	232	50	4.2	ug/l	250	ND	93	60-135			
cis-1,2-Dichloroethene	267	20	3.2	ug/l	250	29	95	60-130			
trans-1,2-Dichloroethene	252	20	2.7	ug/l	250	13	96	60-135			
Tetrachloroethene	303	20	3.2	ug/l	250	3.2	120	60-130			
Trichloroethene	837	20	2.6	ug/l	250	650	75	60-125			
Vinyl chloride	325	50	2.6	ug/l	250	ND	130	40-135			
Surrogate: Dibromofluoromethane	*231*			*ug/l*	*250*		*92*	*80-120*			
Surrogate: Toluene-d8	*269*			*ug/l*	*250*		*108*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*279*			*ug/l*	*250*		*112*	*80-120*			
Matrix Spike Dup Analyzed: 08/01/2006 (6H01010-MSD1)						**Source: IPG2515-01RE1**					
1,1-Dichloroethene	217	50	4.2	ug/l	250	ND	87	60-135	7	20	
cis-1,2-Dichloroethene	264	20	3.2	ug/l	250	29	94	60-130	1	20	
trans-1,2-Dichloroethene	249	20	2.7	ug/l	250	13	94	60-135	1	20	
Tetrachloroethene	319	20	3.2	ug/l	250	3.2	126	60-130	5	20	
Trichloroethene	786	20	2.6	ug/l	250	650	54	60-125	6	20	*M2*
Vinyl chloride	318	50	2.6	ug/l	250	ND	127	40-135	2	30	
Surrogate: Dibromofluoromethane	*225*			*ug/l*	*250*		*90*	*80-120*			
Surrogate: Toluene-d8	*266*			*ug/l*	*250*		*106*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*288*			*ug/l*	*250*		*115*	*80-120*			

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Project ID: LOX WPAA
Boeing SSFL
Report Number: IPG2469

Sampled: 07/27/06
Received: 07/27/06

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5030B/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6H02007 Extracted: 08/02/06											
Blank Analyzed: 08/02/2006 (6H02007-BLK1)											
Trichloroethene	0.470	2.0	0.26	ug/l							*J*
Surrogate: Dibromofluoromethane	*23.4*			*ug/l*	*25.0*		*94*	*80-120*			
Surrogate: Toluene-d8	*26.4*			*ug/l*	*25.0*		*106*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*26.1*			*ug/l*	*25.0*		*104*	*80-120*			
LCS Analyzed: 08/02/2006 (6H02007-BS1)											
Trichloroethene	22.1	2.0	0.26	ug/l	25.0		88	70-125			
Surrogate: Dibromofluoromethane	*23.7*			*ug/l*	*25.0*		*95*	*80-120*			
Surrogate: Toluene-d8	*26.5*			*ug/l*	*25.0*		*106*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*28.8*			*ug/l*	*25.0*		*115*	*80-120*			
Matrix Spike Analyzed: 08/02/2006 (6H02007-MS1)						**Source: IPH0103-02**					
Trichloroethene	22.4	2.0	0.26	ug/l	25.0	ND	90	60-125			
Surrogate: Dibromofluoromethane	*23.2*			*ug/l*	*25.0*		*93*	*80-120*			
Surrogate: Toluene-d8	*26.6*			*ug/l*	*25.0*		*106*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*28.0*			*ug/l*	*25.0*		*112*	*80-120*			
Matrix Spike Dup Analyzed: 08/02/2006 (6H02007-MSD1)						**Source: IPH0103-02**					
Trichloroethene	22.4	2.0	0.26	ug/l	25.0	ND	90	60-125	0	20	
Surrogate: Dibromofluoromethane	*22.3*			*ug/l*	*25.0*		*89*	*80-120*			
Surrogate: Toluene-d8	*27.0*			*ug/l*	*25.0*		*108*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*27.4*			*ug/l*	*25.0*		*110*	*80-120*			

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Project ID: LOX WPAA
Boeing SSFL
Report Number: IPG2469

Sampled: 07/27/06
Received: 07/27/06

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6G31017 Extracted: 07/31/06											
Blank Analyzed: 07/31/2006 (6G31017-BLK1)											
1,1-Dichloroethene	ND	5.0	0.45	ug/kg wet							
cis-1,2-Dichloroethene	ND	2.0	0.83	ug/kg wet							
trans-1,2-Dichloroethene	ND	2.0	0.41	ug/kg wet							
Tetrachloroethene	ND	2.0	0.49	ug/kg wet							
Trichloroethene	ND	2.0	0.34	ug/kg wet							
Vinyl chloride	ND	2.0	0.91	ug/kg wet							
Surrogate: Dibromofluoromethane	*51.7*			*ug/kg wet*	*50.0*		*103*	*80-125*			
Surrogate: Toluene-d8	*49.0*			*ug/kg wet*	*50.0*		*98*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*45.4*			*ug/kg wet*	*50.0*		*91*	*80-120*			
LCS Analyzed: 07/31/2006 (6G31017-BS1)											
1,1-Dichloroethene	44.0	5.0	0.45	ug/kg wet	50.0		88	70-130			
cis-1,2-Dichloroethene	50.5	2.0	0.83	ug/kg wet	50.0		101	65-125			
trans-1,2-Dichloroethene	48.9	2.0	0.41	ug/kg wet	50.0		98	65-130			
Tetrachloroethene	42.9	2.0	0.49	ug/kg wet	50.0		86	65-125			
Trichloroethene	43.3	2.0	0.34	ug/kg wet	50.0		87	70-125			
Vinyl chloride	56.0	2.0	0.91	ug/kg wet	50.0		112	50-130			
Surrogate: Dibromofluoromethane	*50.4*			*ug/kg wet*	*50.0*		*101*	*80-125*			
Surrogate: Toluene-d8	*49.3*			*ug/kg wet*	*50.0*		*99*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*45.6*			*ug/kg wet*	*50.0*		*91*	*80-120*			
LCS Dup Analyzed: 07/31/2006 (6G31017-BSD1)											
1,1-Dichloroethene	50.8	5.0	0.45	ug/kg wet	50.0		102	70-130	14	20	
cis-1,2-Dichloroethene	58.1	2.0	0.83	ug/kg wet	50.0		116	65-125	14	20	
trans-1,2-Dichloroethene	55.4	2.0	0.41	ug/kg wet	50.0		111	65-130	12	20	
Tetrachloroethene	47.8	2.0	0.49	ug/kg wet	50.0		96	65-125	11	20	
Trichloroethene	45.6	2.0	0.34	ug/kg wet	50.0		91	70-125	5	20	
Vinyl chloride	63.1	2.0	0.91	ug/kg wet	50.0		126	50-130	12	25	
Surrogate: Dibromofluoromethane	*54.8*			*ug/kg wet*	*50.0*		*110*	*80-125*			
Surrogate: Toluene-d8	*49.8*			*ug/kg wet*	*50.0*		*100*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*48.1*			*ug/kg wet*	*50.0*		*96*	*80-120*			

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Project ID: LOX WPAA
Boeing SSFL
Report Number: IPG2469

Sampled: 07/27/06
Received: 07/27/06

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6H01027 Extracted: 08/01/06											
Blank Analyzed: 08/02/2006 (6H01027-BLK1)											
Benzene	ND	100	34	ug/kg wet							
Bromobenzene	ND	250	34	ug/kg wet							
Bromochloromethane	ND	250	50	ug/kg wet							
Bromodichloromethane	ND	100	31	ug/kg wet							
Bromoform	ND	250	39	ug/kg wet							
Bromomethane	ND	250	45	ug/kg wet							
n-Butylbenzene	ND	250	34	ug/kg wet							
sec-Butylbenzene	ND	250	31	ug/kg wet							
tert-Butylbenzene	ND	250	27	ug/kg wet							
Carbon tetrachloride	ND	250	28	ug/kg wet							
Chlorobenzene	ND	100	30	ug/kg wet							
Chloroethane	ND	250	45	ug/kg wet							
Chloroform	ND	100	44	ug/kg wet							
Chloromethane	ND	250	50	ug/kg wet							
2-Chlorotoluene	ND	250	32	ug/kg wet							
4-Chlorotoluene	ND	250	32	ug/kg wet							
Dibromochloromethane	ND	100	27	ug/kg wet							
1,2-Dibromo-3-chloropropane	ND	250	59	ug/kg wet							
1,2-Dibromoethane (EDB)	ND	100	40	ug/kg wet							
Dibromomethane	ND	100	42	ug/kg wet							
1,2-Dichlorobenzene	ND	100	32	ug/kg wet							
1,3-Dichlorobenzene	ND	100	31	ug/kg wet							
1,4-Dichlorobenzene	ND	100	34	ug/kg wet							
Dichlorodifluoromethane	ND	200	61	ug/kg wet							
1,1-Dichloroethane	ND	100	40	ug/kg wet							
1,2-Dichloroethane	ND	100	41	ug/kg wet							
1,1-Dichloroethene	ND	250	48	ug/kg wet							
cis-1,2-Dichloroethene	ND	100	48	ug/kg wet							
trans-1,2-Dichloroethene	ND	100	50	ug/kg wet							
1,2-Dichloropropane	ND	100	35	ug/kg wet							
1,3-Dichloropropane	ND	100	36	ug/kg wet							
2,2-Dichloropropane	ND	100	27	ug/kg wet							
1,1-Dichloropropene	ND	100	39	ug/kg wet							
cis-1,3-Dichloropropene	ND	100	36	ug/kg wet							
trans-1,3-Dichloropropene	ND	100	35	ug/kg wet							

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METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6H01027 Extracted: 08/01/06											
Blank Analyzed: 08/02/2006 (6H01027-BLK1)											
Ethylbenzene	ND	100	27	ug/kg wet							
Hexachlorobutadiene	ND	250	39	ug/kg wet							
Isopropylbenzene	ND	100	35	ug/kg wet							
p-Isopropyltoluene	ND	100	48	ug/kg wet							
Methylene chloride	ND	1000	430	ug/kg wet							
Naphthalene	ND	250	81	ug/kg wet							
n-Propylbenzene	ND	100	36	ug/kg wet							
Styrene	ND	100	30	ug/kg wet							
1,1,1,2-Tetrachloroethane	ND	250	21	ug/kg wet							
1,1,2,2-Tetrachloroethane	ND	100	54	ug/kg wet							
Tetrachloroethene	ND	100	44	ug/kg wet							
Toluene	ND	100	33	ug/kg wet							
1,2,3-Trichlorobenzene	ND	250	58	ug/kg wet							
1,2,4-Trichlorobenzene	ND	250	51	ug/kg wet							
1,1,1-Trichloroethane	ND	100	38	ug/kg wet							
1,1,2-Trichloroethane	ND	100	53	ug/kg wet							
Trichloroethene	ND	100	38	ug/kg wet							
Trichlorofluoromethane	ND	250	58	ug/kg wet							
1,2,3-Trichloropropane	ND	500	48	ug/kg wet							
1,2,4-Trimethylbenzene	ND	100	33	ug/kg wet							
1,3,5-Trimethylbenzene	ND	100	30	ug/kg wet							
Vinyl chloride	ND	250	65	ug/kg wet							
o-Xylene	ND	100	28	ug/kg wet							
m,p-Xylenes	ND	100	53	ug/kg wet							
Surrogate: Dibromofluoromethane	*2110*			*ug/kg wet*	*2500*		*84*	*55-140*			
Surrogate: Toluene-d8	*2220*			*ug/kg wet*	*2500*		*89*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*2230*			*ug/kg wet*	*2500*		*89*	*65-140*			

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METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6H01027 Extracted: 08/01/06											
LCS Analyzed: 08/01/2006 (6H01027-BS1)											
1,1-Dichloroethene	2200	250	48	ug/kg wet	2500		88	75-140			
cis-1,2-Dichloroethene	2310	100	48	ug/kg wet	2500		92	65-130			
trans-1,2-Dichloroethene	2380	100	50	ug/kg wet	2500		95	65-130			
Tetrachloroethene	2550	100	44	ug/kg wet	2500		102	65-125			
Trichloroethene	2220	100	38	ug/kg wet	2500		89	70-130			
Vinyl chloride	1320	250	65	ug/kg wet	2500		53	10-120			
Surrogate: Dibromofluoromethane	*2320*			*ug/kg wet*	*2500*		*93*	*55-140*			
Surrogate: Toluene-d8	*2540*			*ug/kg wet*	*2500*		*102*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*2430*			*ug/kg wet*	*2500*		*97*	*65-140*			
LCS Dup Analyzed: 08/01/2006 (6H01027-BSD1)											
1,1-Dichloroethene	2310	250	48	ug/kg wet	2500		92	75-140	5	20	
cis-1,2-Dichloroethene	2370	100	48	ug/kg wet	2500		95	65-130	3	20	
trans-1,2-Dichloroethene	2420	100	50	ug/kg wet	2500		97	65-130	2	20	
Tetrachloroethene	2550	100	44	ug/kg wet	2500		102	65-125	0	20	
Trichloroethene	2270	100	38	ug/kg wet	2500		91	70-130	2	20	
Vinyl chloride	1310	250	65	ug/kg wet	2500		52	10-120	1	30	
Surrogate: Dibromofluoromethane	*2420*			*ug/kg wet*	*2500*		*97*	*55-140*			
Surrogate: Toluene-d8	*2620*			*ug/kg wet*	*2500*		*105*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*2520*			*ug/kg wet*	*2500*		*101*	*65-140*			
Matrix Spike Analyzed: 08/03/2006 (6H01027-MS1)						**Source: IPG2451-02**					
1,1-Dichloroethene	2410	250	48	ug/kg wet	2520	ND	96	55-155			
cis-1,2-Dichloroethene	2430	100	48	ug/kg wet	2520	ND	96	55-135			
trans-1,2-Dichloroethene	2460	100	50	ug/kg wet	2520	ND	98	55-145			
Tetrachloroethene	2520	100	44	ug/kg wet	2520	ND	100	60-150			
Trichloroethene	2160	100	38	ug/kg wet	2520	ND	86	65-150			
Vinyl chloride	1470	250	66	ug/kg wet	2520	ND	58	10-120			
Surrogate: Dibromofluoromethane	*2360*			*ug/kg wet*	*2520*		*94*	*55-140*			
Surrogate: Toluene-d8	*2360*			*ug/kg wet*	*2520*		*94*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*2370*			*ug/kg wet*	*2520*		*94*	*65-140*			

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METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6H01027 Extracted: 08/01/06											
Matrix Spike Dup Analyzed: 08/03/2006 (6H01027-MSD1)						**Source: IPG2451-02**					
1,1-Dichloroethene	2400	250	48	ug/kg wet	2510	ND	96	55-155	0	25	
cis-1,2-Dichloroethene	2370	100	48	ug/kg wet	2510	ND	94	55-135	2	25	
trans-1,2-Dichloroethene	2450	100	50	ug/kg wet	2510	ND	98	55-145	0	25	
Tetrachloroethene	2390	100	44	ug/kg wet	2510	ND	95	60-150	5	25	
Trichloroethene	2180	100	38	ug/kg wet	2510	ND	87	65-150	1	25	
Vinyl chloride	1270	250	65	ug/kg wet	2510	ND	51	10-120	15	35	
Surrogate: Dibromofluoromethane	*2340*			*ug/kg wet*	*2510*		*93*	*55-140*			
Surrogate: Toluene-d8	*2380*			*ug/kg wet*	*2510*		*95*	*60-140*			
Surrogate: 4-Bromofluorobenzene	*2310*			*ug/kg wet*	*2510*		*92*	*65-140*			
Batch: 6H01030 Extracted: 08/01/06											
Blank Analyzed: 08/01/2006 (6H01030-BLK1)											
Trichloroethene	ND	2.0	0.34	ug/kg wet							
Surrogate: Dibromofluoromethane	*50.1*			*ug/kg wet*	*50.0*		*100*	*80-125*			
Surrogate: Toluene-d8	*51.9*			*ug/kg wet*	*50.0*		*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*46.3*			*ug/kg wet*	*50.0*		*93*	*80-120*			
LCS Analyzed: 08/01/2006 (6H01030-BS1)											
Trichloroethene	43.7	2.0	0.34	ug/kg wet	50.0		87	70-125			
Surrogate: Dibromofluoromethane	*54.1*			*ug/kg wet*	*50.0*		*108*	*80-125*			
Surrogate: Toluene-d8	*52.2*			*ug/kg wet*	*50.0*		*104*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*54.8*			*ug/kg wet*	*50.0*		*110*	*80-120*			
Matrix Spike Analyzed: 08/01/2006 (6H01030-MS1)						**Source: IPG2696-02RE1**					
Trichloroethene	47.4	2.0	0.34	ug/kg wet	49.3	ND	96	70-135			
Surrogate: Dibromofluoromethane	*55.0*			*ug/kg wet*	*49.3*		*112*	*80-125*			
Surrogate: Toluene-d8	*49.8*			*ug/kg wet*	*49.3*		*101*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*41.8*			*ug/kg wet*	*49.3*		*85*	*80-120*			

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Michele Chamberlin
Project Manager

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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: LOX WPAA
Boeing SSFL
Report Number: IPG2469

Sampled: 07/27/06
Received: 07/27/06

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6H01030 Extracted: 08/01/06											
Matrix Spike Dup Analyzed: 08/01/2006 (6H01030-MSD1)						**Source: IPG2696-02RE1**					
Trichloroethene	48.9	2.0	0.34	ug/kg wet	50.0	ND	98	70-135	3	25	
Surrogate: Dibromofluoromethane	*53.4*			*ug/kg wet*	*50.0*		*107*	*80-125*			
Surrogate: Toluene-d8	*50.5*			*ug/kg wet*	*50.0*		*101*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*41.5*			*ug/kg wet*	*50.0*		*83*	*80-120*			

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Michele Chamberlin
Project Manager

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San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: LOX WPAA
Boeing SSFL
Report Number: IPG2469

Sampled: 07/27/06
Received: 07/27/06

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 6H02131 Extracted: 08/02/06											
Blank Analyzed: 08/02/2006 (6H02131-BLK1)											
Percent Solids	ND	0.10	N/A	%							
Duplicate Analyzed: 08/02/2006 (6H02131-DUP1)						**Source: IPG2323-01**					
Percent Solids	90.7	0.10	N/A	%		90			1	20	

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San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: LOX WPAA
Boeing SSFL
Report Number: IPG2469

Sampled: 07/27/06
Received: 07/27/06

DATA QUALIFIERS AND DEFINITIONS

J	Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
L	Laboratory Control Sample recovery was above the method control limits. Analyte not detected, data not impacted.
M2	The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

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San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: LOX WPAA
Boeing SSFL
Report Number: IPG2469

Sampled: 07/27/06
Received: 07/27/06

Certification Summary

TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
API RP 40	Soil		
ASTM D2937	Soil		
ASTM	Soil		
EPA 160.3 MOD	Solid	N/A	N/A
EPA 160.3	Soil		
EPA 5035	Soil		
EPA 8260B	Soil	X	X
EPA 8260B	Soil-extr	X	X
EPA 8260B	Water	X	X
Hydrol Cond	Soil		
Sat Zone Pkg	Soil		

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

Keantan Laboratories

640 N. Diamond Bar Blvd. - Diamond Bar, CA 91765

Analysis Performed: BulkDensity-ASTM2937
Samples: IPG2469-01, IPG2469-02, IPG2469-03, IPG2469-04, IPG2469-05, IPG2469-06, IPG2469-07, IPG2469-08, IPG2469-09, IPG2469-10, IPG2469-11, IPG2469-12

Analysis Performed: Hyd Cond
Samples: IPG2469-01, IPG2469-02, IPG2469-03, IPG2469-04, IPG2469-05, IPG2469-06, IPG2469-07, IPG2469-08, IPG2469-09, IPG2469-10, IPG2469-11, IPG2469-12

Analysis Performed: Moisture Content
Samples: IPG2469-01, IPG2469-02, IPG2469-03, IPG2469-04, IPG2469-05, IPG2469-06, IPG2469-07, IPG2469-08, IPG2469-09, IPG2469-10, IPG2469-11, IPG2469-12

Analysis Performed: Porosity, Total
Samples: IPG2469-01, IPG2469-02, IPG2469-03, IPG2469-04, IPG2469-05, IPG2469-06, IPG2469-07, IPG2469-08, IPG2469-09, IPG2469-10, IPG2469-11, IPG2469-12

Analysis Performed: Satur Zone Pkg
Samples: IPG2469-01, IPG2469-02, IPG2469-03, IPG2469-04, IPG2469-05, IPG2469-06, IPG2469-07, IPG2469-08, IPG2469-09, IPG2469-10, IPG2469-11, IPG2469-12

Analysis Performed: Specific Gravity
Samples: IPG2469-01, IPG2469-02, IPG2469-03, IPG2469-04, IPG2469-05, IPG2469-06, IPG2469-07, IPG2469-08, IPG2469-09, IPG2469-10, IPG2469-11, IPG2469-12

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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CHAIN OF CUSTODY RECORD

COC #: MWHSV20070212_00

Page: 1 of 1

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:	
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:			
Report to:	Lisa Tucker	Project Number:	1891264				
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan				
	Suite 300	PM Phone #:	(626) 568-6897				
	San Diego	Field Contact:					
	CA	Field Contact #:					
	92123	Lab Name:	Test America, Inc.				
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin				
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100				
			Irvine, CA 92606				
		Lab Phone:	(949) 261-1022				

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Dioxin by 1613B - Soil	Metals 6010B/6020 Soil Group 8	Metals 7471A Soil Mercury	PCB by SW8082 - Soil	Perchlorate 314 Soil DI-WET	pH by SW9045C - Soil	Instructions/TAT / Comments
Requested Analyses												
FSBS0004S01	Soil	2/12/2007	10:20	1	10			10	10		10	
FSBS0005S01	Soil	2/12/2007	11:03	2	10			10	10	10	10	
FSBS0006S01	Soil	2/12/2007	11:33	2	10			10	10	10	10	
FSBS0007S01	Soil	2/12/2007	12:05	2	10			10	10	10	10	
FSBS0071S01	Soil	2/12/2007	12:57	2	H	H	H	H	EH	H	10	Hold all analysis except for pH
FSBS0069S01	Soil	2/12/2007	13:25	6	10	10	10	10	10	10	10	Homogenize and run MS/MSD
FSBS0070S01	Soil	2/12/2007	13:59	2	10	10	10	10	10	10	10	
FSBS0070S02	Soil	2/12/2007	14:20	2	H	H	H	H	EH	H	10	Hold all analysis except for pH

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract Hold

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
Company: MWH	Time: 0929	Company: TESTAMERICA	Time: 0929	Company: TESTAMERICA	Time:	Company:	Time:

Comments: Lab Leachate for all perchlorate analysis. Homogenize all sample sleeves of sample FSBS0069S01 before analysis, run Method Spike/Spike Duplicate.

Geotracker EDF ☐

Data Validation Package ☑ Level IV

CHAIN OF CUSTODY RECORD

BOEING

COC #: MWH6V20070212_00

Page: 1 of 1

Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela
Company:	MWH	Sampling Event:	Group 6 Data Gaps-Soil	Contact #:	
Report to:	Lisa Tucker	Project Number:	1891264	Boeing PM:	
Address:	9444 Fernham Street	Project Manager:	Diana Buchanan		
	Suite 300	PM Phone #:	(626) 568-6897		
	San Diego	Field Contact:			
	CA	Field Contact #:			
	92123	Lab Name:	Test America, Inc.		
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin		
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100		
			Irvine, CA 92606		
		Lab Phone:	(949) 261-1022		

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract_Hold

					% Solids - Soil	Diesln by 1613B - Soil	Metals 6010B/6020 Soil Group 6	Metals 7471A Soil Mercury	PCB by SW8082 - Soil	Perchlorate 314 Soil DI-WET	pH by SW9045C - Soil	
FSBS0004S01	Soil	2/12/2007	10:20	1	10			10	10		10	
FSBS0005S01	Soil	2/12/2007	11:03	2	10			10	10	10	10	
FSBS0006S01	Soil	2/12/2007	11:33	2	10			10	10	10	10	
FSBS0007S01	Soil	2/12/2007	12:05	2	10			10	10	10	10	
FSBS0071S01	Soil	2/12/2007	12:57	2	H	H	H	H	EH	H	10	Hold all analysis except for pH
FSBS0069S01	Soil	2/12/2007	13:25	6	10	10	10	10	10	10	10	Homogenize and run MS/MSD
FSBS0070S01	Soil	2/12/2007	13:59	2	10	10	10	10	10	10	10	
FSBS0070S02	Soil	2/12/2007	14:20	2	H	H	H	H	EH	H	10	Hold all analysis except for pH

1. Relinquished by: Edmund Sarao	Date: 2-13-07	2. Received by:	Date: 2/13/07	3. Relinquished by:	Date: 2/13/07	4. Received by:	Date: 2/13/07
Company: MWH	Time: 0929	Company: TESTAMERICA IRV.	Time: 0929	Company: TESTAMERICA	Time: 1312	Company: TAI	Time: 1315

Comments: Lab Leachate for all perchlorate analysis. Homogenize all sample sleeves of sample FSBS0069S01 before analysis, run Method Spike/Spike Duplicate.

Geotracker EDF ☐

Data Validation Package ☑ Level IV

2.1.5

EP 1645

EEP-13-2007 12:25 DEL MAR ANALYTICAL 909 370 1046 P.02

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ANALYTICAL TESTING CORPORATION

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LABORATORY REPORT

Prepared For: MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project: SSFL Group 8 - DOE
1891264

Sampled: 02/12/07
Received: 02/13/07
Issued: 03/05/07 15:08

NELAP #01108CA California ELAP#1197 CSDLAC #10256

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.
This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT:	Samples were received intact, at 2°C, on ice and with chain of custody documentation.
HOLDING TIMES:	All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.
PRESERVATION:	Samples requiring preservation were verified prior to sample analysis.
QA/QC CRITERIA:	All analyses met method criteria, except as noted in the report with data qualifiers.
COMMENTS:	Results that fall between the MDL and RL are 'J' flagged.
SUBCONTRACTED:	Refer to the last page for specific subcontract laboratory information included in this report.
ADDITIONAL INFORMATION:	This is a complete final report. The EPA 7471 Mercury was added.

LABORATORY ID	CLIENT ID	MATRIX
IQB1216-01	FSBS0004S01	Soil
IQB1216-02	FSBS0005S01	Soil
IQB1216-03	FSBS0006S01	Soil
IQB1216-04	FSBS0007S01	Soil
IQB1216-05	FSBS0071S01	Soil
IQB1216-06	FSBS0069S01	Soil
IQB1216-07	FSBS0070S01	Soil
IQB1216-08	FSBS0070S02	Soil

Reviewed By:

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

TestAmerica
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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB1216

Sampled: 02/12/07
Received: 02/13/07

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: FSBS0004S01 (IQB1216-01) - Soil					
EPA 9045C	1	02/12/2007 10:20	02/13/2007 13:15	02/13/2007 16:55	02/13/2007 17:45
Sample ID: FSBS0005S01 (IQB1216-02) - Soil					
EPA 9045C	1	02/12/2007 11:03	02/13/2007 13:15	02/13/2007 16:55	02/13/2007 17:45
Sample ID: FSBS0006S01 (IQB1216-03) - Soil					
EPA 9045C	1	02/12/2007 11:33	02/13/2007 13:15	02/13/2007 16:55	02/13/2007 17:45
Sample ID: FSBS0007S01 (IQB1216-04) - Soil					
EPA 9045C	1	02/12/2007 12:05	02/13/2007 13:15	02/13/2007 16:55	02/13/2007 17:45
Sample ID: FSBS0071S01 (IQB1216-05) - Soil					
EPA 9045C	1	02/12/2007 12:57	02/13/2007 13:15	02/13/2007 16:55	02/13/2007 17:45
Sample ID: FSBS0069S01 (IQB1216-06) - Soil					
EPA 9045C	1	02/12/2007 13:25	02/13/2007 13:15	02/13/2007 16:55	02/13/2007 17:45
Sample ID: FSBS0070S01 (IQB1216-07) - Soil					
EPA 9045C	1	02/12/2007 13:59	02/13/2007 13:15	02/13/2007 16:55	02/13/2007 17:45
Sample ID: FSBS0070S02 (IQB1216-08) - Soil					
EPA 9045C	1	02/12/2007 14:20	02/13/2007 13:15	02/13/2007 16:55	02/13/2007 17:45

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Michele Chamberlin
Project Manager

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Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQB1216

Sampled: 02/12/07
Received: 02/13/07

METHOD BLANK/QC DATA

POLYCHLORINATED BIPHENYLS (EPA 3545/8082)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B14097 Extracted: 02/14/07											
Blank Analyzed: 02/14/2007 (7B14097-BLK1)											
Aroclor 1016	ND	50	15	ug/kg wet							
Aroclor 1221	ND	50	15	ug/kg wet							
Aroclor 1232	ND	50	10	ug/kg wet							
Aroclor 1242	ND	50	10	ug/kg wet							
Aroclor 1248	ND	50	10	ug/kg wet							
Aroclor 1254	ND	50	10	ug/kg wet							
Aroclor 1260	ND	50	10	ug/kg wet							
Surrogate: Decachlorobiphenyl	*29.0*			*ug/kg wet*	*33.3*		*87*	*45-120*			
LCS Analyzed: 02/14/2007 (7B14097-BS2)											
Aroclor 1016	241	50	15	ug/kg wet	267		90	60-115			
Aroclor 1260	261	50	10	ug/kg wet	267		98	60-115			
Surrogate: Decachlorobiphenyl	*31.7*			*ug/kg wet*	*33.3*		*95*	*45-120*			
Matrix Spike Analyzed: 02/15/2007 (7B14097-MS2)						**Source: IQB1216-06**					
Aroclor 1016	280	56	17	ug/kg dry	300	ND	93	45-120			
Aroclor 1260	296	56	11	ug/kg dry	300	ND	99	45-120			
Surrogate: Decachlorobiphenyl	*37.6*			*ug/kg dry*	*37.5*		*100*	*45-120*			
Matrix Spike Dup Analyzed: 02/15/2007 (7B14097-MSD2)						**Source: IQB1216-06**					
Aroclor 1016	281	56	17	ug/kg dry	300	ND	94	45-120	0	30	
Aroclor 1260	290	56	11	ug/kg dry	300	ND	97	45-120	2	30	
Surrogate: Decachlorobiphenyl	*35.9*			*ug/kg dry*	*37.5*		*96*	*45-120*			

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Michele Chamberlin
Project Manager

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San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQB1216

Sampled: 02/12/07
Received: 02/13/07

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B14108 Extracted: 02/14/07											
Blank Analyzed: 02/15/2007 (7B14108-BLK1)											
Antimony	ND	1.0	0.030	mg/kg wet							
Arsenic	ND	0.50	0.25	mg/kg wet							
Barium	ND	0.50	0.080	mg/kg wet							
Beryllium	ND	0.30	0.040	mg/kg wet							
Cadmium	ND	0.50	0.025	mg/kg wet							
Chromium	0.384	1.0	0.35	mg/kg wet							*J*
Cobalt	ND	0.50	0.080	mg/kg wet							
Copper	ND	1.0	0.20	mg/kg wet							
Lead	ND	0.50	0.050	mg/kg wet							
Molybdenum	ND	1.0	0.10	mg/kg wet							
Nickel	ND	1.0	0.45	mg/kg wet							
Selenium	ND	1.0	0.20	mg/kg wet							
Silver	ND	0.50	0.050	mg/kg wet							
Thallium	ND	0.50	0.10	mg/kg wet							
Vanadium	ND	1.0	0.40	mg/kg wet							
Zinc	5.86	10	1.3	mg/kg wet							*J*
LCS Analyzed: 02/15/2007 (7B14108-BS1)											
Antimony	48.3	1.0	0.030	mg/kg wet	50.0		97	80-120			
Arsenic	44.6	0.50	0.25	mg/kg wet	50.0		89	80-120			
Barium	47.2	0.50	0.080	mg/kg wet	50.0		94	80-120			
Beryllium	52.2	0.30	0.040	mg/kg wet	50.0		104	80-120			
Cadmium	46.5	0.50	0.025	mg/kg wet	50.0		93	80-120			
Chromium	47.2	1.0	0.35	mg/kg wet	50.0		94	80-120			
Cobalt	47.2	0.50	0.080	mg/kg wet	50.0		94	80-120			
Copper	47.5	1.0	0.20	mg/kg wet	50.0		95	80-120			
Lead	44.6	0.50	0.050	mg/kg wet	50.0		89	80-120			
Molybdenum	47.0	1.0	0.10	mg/kg wet	50.0		94	80-120			
Nickel	47.3	1.0	0.45	mg/kg wet	50.0		95	80-120			
Selenium	41.7	1.0	0.20	mg/kg wet	50.0		83	80-120			
Silver	29.3	0.50	0.050	mg/kg wet	25.0		117	80-120			
Thallium	43.7	0.50	0.10	mg/kg wet	50.0		87	80-120			
Vanadium	45.8	1.0	0.40	mg/kg wet	50.0		92	80-120			
Zinc	41.2	10	1.3	mg/kg wet	50.0		82	80-120			

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Michele Chamberlin
Project Manager

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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQB1216

Sampled: 02/12/07
Received: 02/13/07

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B14108 Extracted: 02/14/07											
Matrix Spike Analyzed: 02/15/2007 (7B14108-MS1)						**Source: IQB1216-06**					
Antimony	14.9	1.1	0.034	mg/kg dry	56.3	0.13	26	75-125			*M2*
Arsenic	45.9	0.56	0.28	mg/kg dry	56.3	3.6	75	75-125			
Barium	125	0.56	0.090	mg/kg dry	56.3	76	87	75-125			
Beryllium	46.9	0.34	0.045	mg/kg dry	56.3	0.51	82	75-125			
Cadmium	43.4	0.56	0.028	mg/kg dry	56.3	0.16	77	75-125			
Chromium	60.4	1.1	0.39	mg/kg dry	56.3	14	82	75-125			
Cobalt	48.6	0.56	0.090	mg/kg dry	56.3	5.1	77	75-125			
Copper	47.3	1.1	0.23	mg/kg dry	56.3	9.2	68	75-125			*M2*
Lead	53.5	0.56	0.056	mg/kg dry	56.3	6.6	83	75-125			
Molybdenum	43.6	1.1	0.11	mg/kg dry	56.3	0.52	77	75-125			
Nickel	51.7	1.1	0.51	mg/kg dry	56.3	9.2	75	75-125			
Selenium	40.3	1.1	0.23	mg/kg dry	56.3	0.27	71	75-125			*M2*
Silver	27.0	0.56	0.056	mg/kg dry	28.2	0.098	95	75-125			
Thallium	47.4	0.56	0.11	mg/kg dry	56.3	0.30	84	75-125			
Vanadium	75.6	1.1	0.45	mg/kg dry	56.3	25	90	75-125			
Zinc	77.7	11	1.5	mg/kg dry	56.3	42	63	75-125			*M2*
Matrix Spike Dup Analyzed: 02/15/2007 (7B14108-MSD1)						**Source: IQB1216-06**					
Antimony	15.5	1.1	0.034	mg/kg dry	56.3	0.13	27	75-125	4	20	*M2*
Arsenic	46.0	0.56	0.28	mg/kg dry	56.3	3.6	75	75-125	0	20	
Barium	126	0.56	0.090	mg/kg dry	56.3	76	89	75-125	1	20	
Beryllium	45.3	0.34	0.045	mg/kg dry	56.3	0.51	80	75-125	3	20	
Cadmium	43.8	0.56	0.028	mg/kg dry	56.3	0.16	78	75-125	1	20	
Chromium	58.5	1.1	0.39	mg/kg dry	56.3	14	79	75-125	3	20	
Cobalt	48.1	0.56	0.090	mg/kg dry	56.3	5.1	76	75-125	1	20	
Copper	46.7	1.1	0.23	mg/kg dry	56.3	9.2	67	75-125	1	20	*M2*
Lead	54.2	0.56	0.056	mg/kg dry	56.3	6.6	85	75-125	1	20	
Molybdenum	44.0	1.1	0.11	mg/kg dry	56.3	0.52	77	75-125	1	20	
Nickel	50.9	1.1	0.51	mg/kg dry	56.3	9.2	74	75-125	2	20	*M2*
Selenium	39.7	1.1	0.23	mg/kg dry	56.3	0.27	70	75-125	1	20	*M2*
Silver	26.8	0.56	0.056	mg/kg dry	28.2	0.098	95	75-125	1	20	
Thallium	48.3	0.56	0.11	mg/kg dry	56.3	0.30	85	75-125	2	20	
Vanadium	74.1	1.1	0.45	mg/kg dry	56.3	25	87	75-125	2	20	
Zinc	75.7	11	1.5	mg/kg dry	56.3	42	60	75-125	3	20	*M2*

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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ANALYTICAL TESTING CORPORATION
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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB1216

Sampled: 02/12/07
Received: 02/13/07

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B14110 Extracted: 02/14/07											
Blank Analyzed: 02/15/2007 (7B14110-BLK1)											
Aluminum	ND	10	5.0	mg/kg wet							
Boron	ND	5.0	1.0	mg/kg wet							
Lithium	ND	6.3	3.8	mg/kg wet							
Potassium	24.7	50	19	mg/kg wet							*J*
Sodium	ND	50	24	mg/kg wet							
LCS Analyzed: 02/15/2007 (7B14110-BS1)											
Aluminum	47.6	10	5.0	mg/kg wet	50.0		95	80-120			
Boron	48.8	5.0	1.0	mg/kg wet	50.0		98	80-120			
Lithium	50.1	6.3	3.8	mg/kg wet	50.0		100	80-120			
Potassium	503	50	19	mg/kg wet	500		101	80-120			
Sodium	480	50	24	mg/kg wet	500		96	80-120			
Matrix Spike Analyzed: 02/15/2007 (7B14110-MS1)						**Source: IQB1216-06**					
Aluminum	16400	11	5.6	mg/kg dry	56.3	14000	4263	75-125			*MHA*
Boron	57.4	5.6	1.1	mg/kg dry	56.3	2.9	97	75-125			
Lithium	79.2	7.1	4.3	mg/kg dry	56.3	25	96	75-125			
Potassium	4410	56	21	mg/kg dry	563	3700	126	75-125			*MHA*
Sodium	614	56	27	mg/kg dry	563	58	99	75-125			
Matrix Spike Dup Analyzed: 02/15/2007 (7B14110-MSD1)						**Source: IQB1216-06**					
Aluminum	16400	11	5.6	mg/kg dry	56.3	14000	4263	75-125	0	20	*MHA*
Boron	58.4	5.6	1.1	mg/kg dry	56.3	2.9	99	75-125	2	20	
Lithium	79.7	7.1	4.3	mg/kg dry	56.3	25	97	75-125	1	20	
Potassium	4340	56	21	mg/kg dry	563	3700	114	75-125	2	20	*MHA*
Sodium	616	56	27	mg/kg dry	563	58	99	75-125	0	20	

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB1216

Sampled: 02/12/07
Received: 02/13/07

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B16119 Extracted: 02/16/07											
Blank Analyzed: 02/16/2007 (7B16119-BLK1)											
Zirconium	ND	25	1.5	mg/kg wet							
LCS Analyzed: 02/16/2007 (7B16119-BS1)											
Zirconium	47.8	25	1.5	mg/kg wet	50.0		96	80-120			
Matrix Spike Analyzed: 02/16/2007 (7B16119-MS1)						**Source: IQB1216-06**					
Zirconium	29.9	28	1.7	mg/kg dry	56.3	1.7	50	75-125			*M2*
Matrix Spike Dup Analyzed: 02/16/2007 (7B16119-MSD1)						**Source: IQB1216-06**					
Zirconium	29.1	28	1.7	mg/kg dry	56.3	1.7	49	75-125	3	20	*M2*

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1891264
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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B13136 Extracted: 02/13/07											
Duplicate Analyzed: 02/13/2007 (7B13136-DUP1)						**Source: IQB1216-01**					
pH	7.45	NA	0.00	pH Units		7.43			0	5	
Duplicate Analyzed: 02/13/2007 (7B13136-DUP2)						**Source: IQB1216-06**					
pH	6.94	NA	0.00	pH Units		6.94			0	5	
Batch: 7B15123 Extracted: 02/15/07											
Blank Analyzed: 02/16/2007 (7B15123-BLK1)											
Percent Solids	ND	0.10	0.10	%							
Duplicate Analyzed: 02/16/2007 (7B15123-DUP1)						**Source: IQB1216-06**					
Percent Solids	88.7	0.10	0.10	%		89			0	20	
Batch: 7B21099 Extracted: 02/21/07											
Blank Analyzed: 02/21/2007 (7B21099-BLK1)											
Perchlorate	ND	4.0	0.80	ug/l							
LCS Analyzed: 02/21/2007 (7B21099-BS1)											
Perchlorate	52.7	4.0	0.80	ug/l	50.0		105	85-115			
Matrix Spike Analyzed: 02/21/2007 (7B21099-MS1)						**Source: IQB1216-02**					
Perchlorate	52.9	4.0	0.80	ug/l	50.0	ND	106	80-120			
Matrix Spike Dup Analyzed: 02/21/2007 (7B21099-MSD1)						**Source: IQB1216-02**					
Perchlorate	52.9	4.0	0.80	ug/l	50.0	ND	106	80-120	0	20	

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Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB1216

Sampled: 02/12/07
Received: 02/13/07

DATA QUALIFIERS AND DEFINITIONS

B	Analyte was detected in the associated Method Blank.
J	Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
M2	The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
MHA	Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
RL1	Reporting limit raised due to sample matrix effects.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB1216

Sampled: 02/12/07
Received: 02/13/07

Certification Summary

TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
EPA 160.3 MOD	Soil	N/A	N/A
EPA 314.0 DI-RFI	Soil		
EPA 3545/8082	Soil	X	X
EPA 6010B	Soil	X	X
EPA 6020	Soil	X	X
EPA 8082	Soil	X	X
EPA 9045C	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

Paradigm Labs - SUB

5500 Business Dr. - Wilmington, NC 28405

Analysis Performed: 1613-Dioxin-HR OUT
Samples: IQB1216-06, IQB1216-07

Weck Laboratories, Inc

14859 E. Clark Avenue - City of Industry, CA 91745

Analysis Performed: Mercury-7471 (dry wt)
Samples: IQB1216-01, IQB1216-02, IQB1216-03, IQB1216-04, IQB1216-06, IQB1216-07

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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SGS

Laboratory Results

Ms. Michele Chamberlin
Test America
17461 Derian Ave.
Suite 100
Irvine CA 92614

Phone: 949-261-1022
Fax:

Dear Ms. Chamberlin:

Enclosed is a full data package containing the final results for samples received by Paradigm Analytical Labs, Inc. on February 15, 2007 under your project name "IQB1216". The samples were analyzed by Method 1613 following Paradigm's Standard Operating Procedures and are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards.

Number of Samples Received:	4
Your Project Reference:	IQB1216
PAL Project Number:	G579-222

We appreciate your business and look forward to working with you again. Please contact me at 910-350-1903 if you have questions or need additional technical support.

Sincerely,

Christopher K. Cornwell
Assistant Director

2/23/07
Date

5500 Business Dr., Wilmington, NC 28405 t (910) 350-1903 f (910) 350-1557 www.sgs.com

Member of the SGS Group

SGS

Case Narrative
SGS Project: **G579-222**
Project Name: **IQB1216**

For Method: 1613

- The submitted samples was accepted into the lab on February 15th, 2007 and extracted on February 19th, 2007 by method 3540C. The sample extracts and associated QC extracts were then processed through clean-up by method 3630/3620 and analyzed by HRGC/HRMS for methods 1613.

Craig R. Tronzo 2/27/07
Craig R. Tronzo
Data Validation/QA Officer

Secondary Review

W. Mike Larkins Date
Technical Director

Or Heather Patterson 27 Feb 07
Heather Patterson Date
Director

2

SGS

List of Qualifiers

B Analyte was detected in the Lab Method Blank at a level above the Reporting Limit.

EDL "Estimated Detection Limit"

EMPC "Estimated Maximum Possible Concentration"

ppt Parts-per-trillion (pg/g; ng/L)

V Recovery is below quality control limit. The data has been validated based on a favorable signal-to-noise and detection limit.

Outside quality control limits

* See case narrative

An average uncertainty of 30% can be routinely achieved as concluded from the evaluation of HRGC-HRMS standard operating procedures. The following flags warn the data user of situations where the uncertainty may be greater than stated.

A Amount detected is less than the Lower Calibration Limit.

J Amount detected is between the Method Detection Limit and the Lower Calibration Limit.

E Amount detected is greater than the Upper Calibration Limit.

S The amount of analyte present has saturated the detector. This situation results in an underestimation of the affected analyte(s).

Q Indicates the presence of a quantitative interference. This situation may result in an underestimation of the affected analyte(s).

I Indicates the presence of a qualitative interference that could cause a false positive or an overestimation of the affected analyte(s).

DPE Indicates the presence of a peak in the polychlorinated diphenylether channel that could cause a false positive or an overestimation of the affected analyte(s).

SGS

Toxic Equivalency Factors

Analyte	WHO* 1998	WHO* 2005	International-89	MADEP+
2,3,7,8-TCDD	1	1	1	1
1,2,3,7,8-PeCDD	1	1	0.5	0.5
1,2,3,4,7,8-HxCDD	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDD	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDD	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDD	0.01	0.01	0.01	0.1
OCDD	0.0001	0.0003	0.001	0.001
2,3,7,8-TCDF	0.1	0.1	0.1	0.1
1,2,3,7,8-PeCDF	0.05	0.03	0.05	0.5
2,3,4,7,8-PeCDF	0.5	0.3	0.5	0.5
1,2,3,4,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDF	0.1	0.1	0.1	0.1
2,3,4,6,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDF	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDF	0.01	0.01	0.01	0.1
1,2,3,4,7,8,9-HpCDF	0.01	0.01	0.01	0.1
OCDF	0.0001	0.0003	0.001	0.001

* World Health Organization
+ Massachusetts Department of Environmental Protection

Method 1613 - Blank Results

LMB

Analytical Data Summary Sheet

Analyte	Amount (pg/g)	EDL (pg/g)	Adj. RL (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.109	1.00			
1,2,3,7,8-PeCDD	ND	0.109	5.00			Q
1,2,3,4,7,8-HxCDD	ND	0.133	5.00			
1,2,3,6,7,8-HxCDD	ND	0.133	5.00			
1,2,3,7,8,9-HxCDD	ND	0.132	5.00			
1,2,3,4,6,7,8-HpCDD	ND	0.202	5.00			
OCDD	0.734	0.358	10.0	44:08	0.88	A
2,3,7,8-TCDF	ND	0.128	1.00			
1,2,3,7,8-PeCDF	ND	0.0690	5.00			
2,3,4,7,8-PeCDF	0.0880	0.0710	5.00	33:51	1.61	A
1,2,3,4,7,8-HxCDF	ND	0.0976	5.00			
1,2,3,6,7,8-HxCDF	ND	0.0914	5.00			
2,3,4,6,7,8-HxCDF	ND	0.0982	5.00			
1,2,3,7,8,9-HxCDF	ND	0.130	5.00			
1,2,3,4,6,7,8-HpCDF	ND	0.120	5.00			
1,2,3,4,7,8,9-HpCDF	ND	0.190	5.00			
OCDF	ND	0.275	10.0			
Total TCDDs	ND	0.109	1.00			
Total PeCDDs	ND	0.109	5.00			
Total HxCDDs	ND	0.133	5.00			
Total HpCDDs	ND	0.202	5.00			
Total TCDFs	ND	0.128	1.00			
Total PeCDFs	0.0880	0.0700	5.00			A
Total HxCDFs	ND	0.103	5.00			
Total HpCDFs	ND	0.151	5.00			
ITEF TEQ (ND=0)	0.0447					
ITEF TEQ (ND=½)	0.178					

Laboratory Information

Sample ID:	LMB14123		Filename:	a22feb07a-4
			Retchk:	a22feb07a-1
			Begin ConCal:	a22feb07a-1
Extraction Date:	19-Feb-07			
Analysis Date:	22-Feb-07	18:49	Initial Cal:	m1613-071006e

Sample Information

Matrix:	0	
Weight / Volume:	10.00	Grams
Solids / Lipids:	100	%
Original pH :	NA	
Batch ID:	WG14123	

Method 1613 - Blank Results

LMB

Analytical Data Summary Sheet

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
$^{13}C_{12}$-2,3,7,8-TCDD	2.00	1.82	91.0	31:09	0.78	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	2.00	1.77	88.3	34:02	1.59	Q
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	2.00	1.80	89.9	36:36	1.34	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	2.00	1.83	91.3	36:41	1.19	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	2.00	1.70	84.8	39:57	1.06	
$^{13}C_{12}$-OCDD	4.00	3.07	76.8	44:07	0.90	
$^{13}C_{12}$-2,3,7,8-TCDF	2.00	1.86	93.0	30:25	0.79	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	2.00	1.81	90.7	33:14	1.58	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	2.00	1.76	88.2	33:51	1.59	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	2.00	1.85	92.6	35:53	0.52	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	2.00	1.91	95.4	35:60	0.52	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	2.00	1.87	93.6	36:28	0.53	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	2.00	1.75	87.4	37:14	0.53	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	2.00	1.70	84.8	38:42	0.45	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	2.00	1.64	82.2	40:36	0.45	
Cleanup Standards						
$^{37}Cl_4$-2,3,7,8-TCDD	0.400	0.363	90.8	31:10	-	
Injection Standards						
$^{13}C_{12}$-1,2,3,4-TCDD	2.00			30:37	0.78	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	2.00			36:55	1.25	

Sample Information

Matrix:	0	
Weight / Volume:	10.00	Grams
Solids / Lipids:	100	%
Original pH :	NA	
Batch ID:	WG14123	

Laboratory Information

Sample ID:	LMB14123		Filename:	a22feb07a-4
			Retchk:	a22feb07a-1
			Begin ConCal:	a22feb07a-1
Extraction Date:	19-Feb-07			
Analysis Date:	22-Feb-07	18:49	Initial Cal:	m1613-071006e

Analyzed by: JWP
Date: 02-23-07

Reviewed by: [illegible]
Date: 2/23/07

Analytical Results
for
Ongoing Precision Result (OPR)

Analyte	Spiked	AMT	REC	Range pg/ul		Flag
	pg/ul	pg/ul	%	Lower	Upper	
2,3,7,8-TCDD	10.0	9.56	95.6	6.70	15.8	
1,2,3,7,8-PeCDD	50.0	48.6	97.2	35.0	71.0	
1,2,3,4,7,8-HxCDD	50.0	50.2	100	35.0	82.0	
1,2,3,6,7,8-HxCDD	50.0	51.1	102	38.0	67.0	
1,2,3,7,8,9-HxCDD	50.0	49.8	99.5	32.0	81.0	
1,2,3,4,6,7,8-HpCDD	50.0	49.2	98.5	35.0	70.0	
OCDD	100	96.6	96.6	78.0	144	
2,3,7,8-TCDF	10.0	9.16	91.6	7.50	15.8	
1,2,3,7,8-PeCDF	50.0	49.4	98.8	40.0	67.0	
2,3,4,7,8-PeCDF	50.0	49.5	98.9	34.0	80.0	
1,2,3,4,7,8-HxCDF	50.0	49.2	98.4	36.0	67.0	
1,2,3,6,7,8-HxCDF	50.0	49.8	99.7	42.0	65.0	
2,3,4,6,7,8-HxCDF	50.0	49.4	98.9	35.0	78.0	
1,2,3,7,8,9-HxCDF	50.0	49.2	98.5	39.0	65.0	
1,2,3,4,6,7,8-HpCDF	50.0	49.5	98.9	41.0	61.0	
1,2,3,4,7,8,9-HpCDF	50.0	48.1	96.1	39.0	69.0	
OCDF	100	103	103	63.0	170	

= Outside range limits
* = Ion Ratio Out

QC Information

OPR Lab ID:	OPR14123
Extraction Date:	19-Feb-07
Analysis Date:	22-Feb-07
Method:	1613

Sample Information

Matrix:	Soil

File Information

OPR Filename :	a22feb07a-2
Retchk:	a22feb07a-1
Begin ConCal:	a22feb07a-1
Initial Cal:	m1613-071006e

Analytical Results
for
Ongoing Precision Result (OPR)

Labeled Standard	Spiked pg/ul	AMT pg/ul	REC %	Range pg/ul Lower	Range pg/ul Upper	Flag
Extraction Standards						
$^{13}C_{12}$-2,3,7,8-TCDD	100	91.0	91.0	20.0	175	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	100	86.8	86.8	21.0	227	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	100	91.5	91.5	21.0	193	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	100	89.1	89.1	25.0	163	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	100	86.9	86.9	26.0	166	
$^{13}C_{12}$-OCDD	200	159	79.7	26.0	397	
$^{13}C_{12}$-2,3,7,8-TCDF	100	93.9	93.9	22.0	152	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	100	90.9	90.9	21.0	192	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	100	87.1	87.1	13.0	328	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	100	89.7	89.7	19.0	202	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	100	90.4	90.4	21.0	159	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	100	93.1	93.1	22.0	176	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	100	90.2	90.2	17.0	205	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	100	88.1	88.1	21.0	158	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	100	89.0	89.0	20.0	186	
Cleanup Standards						
$^{37}C_{l4}$-2,3,7,8-TCDD	20.0	18.8	93.8	6.20	38.2	

Form Version:[OPRv3.474]1613

QC Information

OPR Lab ID:	OPR14123
Extraction Date:	19-Feb-07
Analysis Date:	22-Feb-07
Method:	1613

Sample Information

Matrix:	Soil

File Information

OPR Filename :	a22feb07a-2
Retchk:	a22feb07a-1
Begin ConCal:	a22feb07a-1
Initial Cal:	m1613-071006e

Reviewed by: _____ Date Reviewed: 2/27/07

TestAmerica
ANALYTICAL TESTING CORPORATION

SUBCONTRACT ORDER - PROJECT # IQB1216 ✓

SENDING LABORATORY:	RECEIVING LABORATORY:
TestAmerica - Irvine, CA 17461 Derian Avenue. Suite 100 Irvine, CA 92614 Phone: (949) 261-1022 Fax: (949) 260-3297 Project Manager: Michele Chamberlin	Paradigm Labs - SUB 5500 Business Dr. Wilmington, NC 28405 Phone :(910) 350-1903 Fax: (910) 350-1557 Project Location: California

Work Order Comments: Level 4 QC. Boeing EDD, Report to MDL w/ J flags, report in dry weight, 2 week TAT.

Standard TAT is requested unless specific due date is requested => Due Date:_____ Initials:_____

Analysis	Expiration		Comments
Sample ID: IQB1216-06 Soil	**Sampled: 02/12/07 13:25**	**MS/MSD**	
1613-Dioxin-HR OUT	02/26/07 13:25	✓ ✓ /	Sub=Paradigm,17 cngnrs,dry wt(soil), 2 wkTAT,Jflag
Level 4 + EDD-OUT	03/12/07 13:25		Sub to Paradigm, TAT=2 weeks, EDD=Boeing, CD
MS/MSD	03/12/07 13:25		
Containers Supplied:			
250 ml Glass (IQB1216-06K)			
Sample ID: IQB1216-07 Soil	**Sampled: 02/12/07 13:59**	✓	
1613-Dioxin-HR OUT	02/26/07 13:59		Sub=Paradigm,17 cngnrs,dry wt(soil), 2 wkTAT,Jflag
Level 4 + EDD-OUT	03/12/07 13:59		Sub to Paradigm, TAT=2 weeks, EDD=Boeing, CD
Containers Supplied:			
2 oz jar (IQB1216-07C)			

SAMPLE INTEGRITY:

All containers intact: ☐ Yes ☐ No | Sample labels/COC agree: ☐ Yes ☐ No | Samples Received On Ice:: ☒ Yes ☐ No

Custody Seals Present: ☐ Yes ☐ No | Samples Preserved Properly: ☐ Yes ☐ No | Samples Received at (temp): 2.3

Released By	Date	Time	Received By	Date	Time
[signature]	2/14/07		[signature]	2/15/07	1135
Released By	Date	Time	Received By	Date	Time

Weck Laboratories, Inc.
Analytical Laboratory Services - Since 1964

14859 E. Clark Ave., Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634
info@wecklabs.com www.wecklabs.com

CERTIFICATE OF ANALYSIS

Client: TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine, CA 92614
Attention: Michele Chamberlin

Phone: (949) 261-1022
Fax: (949) 260-3297

Report Date: 03/02/07 16:54
Received Date: 02/14/07 11:40
Turn Around: Normal

Work Order #: 7021429

Client Project: IQB1216

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Michele Chamberlin :

Enclosed are the results of analyses for samples received 02/14/07 11:40 with the Chain of Custody document. The samples were received in good condition, at 3.0 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Reviewed by:
Taylor Maligmat

Taylor Maligmat
Project Manager

Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7021429
Project ID: IQB1216

Date Received: 02/14/07 11:40
Date Reported: 03/02/07 16:54

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Laboratory	Matrix	Date Sampled
IQB1216-01	client		7021429-01	Solid	02/12/07 10:20
IQB1216-02	client		7021429-02	Solid	02/12/07 11:03
IQB1216-03	client		7021429-03	Solid	02/12/07 11:33
IQB1216-04	client		7021429-04	Solid	02/12/07 12:05
IQB1216-06	client	MS/MSD	7021429-05	Solid	02/12/07 13:25
IQB1216-07	client		7021429-06	Solid	02/12/07 13:59

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7021429
Project ID: IQB1216

Date Received: 02/14/07 11:40
Date Reported: 03/02/07 16:54

QUALITY CONTROL SECTION

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7021429
Project ID: IQB1216

Date Received: 02/14/07 11:40
Date Reported: 03/02/07 16:54

Metals (Non-Aqueous) by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch W7B0623 - EPA 7471A										
Blank (W7B0623-BLK1)				Analyzed: 02/22/07						
Mercury, Total	0.00108	0.010	mg/kg wet							J
LCS (W7B0623-BS1)				Analyzed: 02/22/07						
Mercury, Total	0.0827	0.010	mg/kg wet	0.0833		99.3	80-120			
Matrix Spike (W7B0623-MS1)	**Source: 7021327-10**			Analyzed: 02/22/07						
Mercury, Total	0.146	0.011	mg/kg dry	0.0926	0.052	102	70-130			
Matrix Spike (W7B0623-MS2)	**Source: 7021429-05**			Analyzed: 02/22/07						
Mercury, Total	0.104	0.011	mg/kg dry	0.0908	0.017	95.8	70-130			
Matrix Spike Dup (W7B0623-MSD1)	**Source: 7021327-10**			Analyzed: 02/22/07						
Mercury, Total	0.148	0.011	mg/kg dry	0.0897	0.052	107	70-130	1.36	25	
Matrix Spike Dup (W7B0623-MSD2)	**Source: 7021429-05**			Analyzed: 02/22/07						
Mercury, Total	0.102	0.011	mg/kg dry	0.0923	0.017	92.1	70-130	1.94	25	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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TestAmerica, Inc. - Irvine
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Irvine CA, 92614

Report ID: 7021429
Project ID: IQB1216

Date Received: 02/14/07 11:40
Date Reported: 03/02/07 16:54

Notes and Definitions

J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070213_03

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:	
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:			
Report to:	Lisa Tucker	Project Number:	1891264				
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan				
	Suite 300	PM Phone #:	(626) 568-6897				
	San Diego	Field Contact:					
	CA	Field Contact #:					
	92123	Lab Name:	Test America, Inc.				
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin				
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100				
			Irvine, CA 92606				
		Lab Phone:	(949) 261-1022				

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Dioxin by 1613B - Soil	Metals 6010B/6020 Soil Group 8	Metals 7471A Soil Mercury	PCB by SW8082 - Soil	Perchlorate 314 Soil DI-WET	pH by SW9045C - Soil	SVOCs by SW8270C SIM - Soil	TPH by SW8015BM - Soil	VOC 8260B Soil Full						Comments
FSBS0067S01	Soil	2/13/2007	8:40	2	10	10	10	10	10	10	10									
FSBS0067S02	Soil	2/13/2007	9:08	2	H	H	H	H	EH	H	10									Hold all analysis except for pH
FSBS0066D01	Soil	2/13/2007	9:27	2	10	10	10	10	10	10	10									
FSBS0066S01	Soil	2/13/2007	9:27	2	10	10	10	10	10	10	10									
FSBS0066S02	Soil	2/13/2007	9:55	2	H	H	H	H	EH	H	10									Hold all analysis except for pH
FSBS0065S01	Soil	2/13/2007	10:21	1						10										
FSBS0064S01	Soil	2/13/2007	10:55	1						10										
FSBS0064S02	Soil	2/13/2007	11:11	1						H										Hold analysis
FSBS0064S03	Soil	2/13/2007	11:20	1						H										Hold analysis

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract Hold

ER 2130

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
Ed Sand	2/14/2007		2/14/07		2/14/07		2-14-07
Company: MWH	Time: 1000	Company: TAI	Time: 1000	Company: TAI	Time: 1945	Company:	Time: 1945

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

2°C

499

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070213_03

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:	
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:			
Report to:	Lisa Tucker	Project Number:	1891264				
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan				
	Suite 300	PM Phone #:	(626) 568-6897				
	San Diego	Field Contact:					
	CA	Field Contact #:					
	92123	Lab Name:	Test America, Inc.				
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin				
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100				
			Irvine, CA 92606				
		Lab Phone:	(949) 261-1022				

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Dioxin by 1613B - Soil	Metals 6010B/6020 Soil Group 8	Metals 7471A Soil Mercury	PCB by SW8082 - Soil	Perchlorate 314 Soil DI-WET	pH by SW9045C - Soil	SVOCs by SW8270C SIM - Soil	TPH by SW8015BM - Soil	VOC 8260B Soil Full	Comments
					Requested Analyses										Instructions/TAT
FSBS0068S01	Soil	2/13/2007	12:05	2	H	H	H	H	EH	H	10				Hold all analysis except for pH
FSBS0014S01	Soil	2/13/2007	12:45	5	H		H	H	EH	H	10	EH	EH	H	Hold all analysis except for pH
FSBS0018S01	Soil	2/13/2007	13:21	1						10					
FSBS0014S02	Soil	2/13/2007	13:30	5	H		H	H	EH	H	10	EH	EH	H	Hold all analysis except for pH
FSBS0017S01	Soil	2/13/2007	13:50	1						10					
FSBS0016S01	Soil	2/13/2007	13:57	1						H					Hold analysis
FSBS0019S01	Soil	2/13/2007	14:23	1						H					Hold analysis
FSBS0020S01	Soil	2/13/2007	14:28	1						H					Hold analysis

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract_Hold

2°C

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/14/2007		2/14/07		2/14/07		2-14-07
Company: MWH	Time: 1000	Company: TAI	Time: 1000	Company: TAI	Time: 1945	Company:	Time: 1945

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

TestAmerica
ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project: SSFL Group 8 - DOE
1891264

Sampled: 02/13/07
Received: 02/14/07
Revised: 03/16/07 12:45

NELAP #01108CA California ELAP#1197 CSDLAC #10256

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.
This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT:	Samples were received intact, at 2°C, on ice and with chain of custody documentation.
HOLDING TIMES:	All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.
PRESERVATION:	Samples requiring preservation were verified prior to sample analysis.
QA/QC CRITERIA:	All analyses met method criteria, except as noted in the report with data qualifiers.
COMMENTS:	Results that fall between the MDL and RL are 'J' flagged.
SUBCONTRACTED:	Refer to the last page for specific subcontract laboratory information included in this report.
ADDITIONAL INFORMATION:	Enclosed are complete final results. This report was revised to a an M-HA qualifer for potassium on QC batch 7B15107.

LABORATORY ID	CLIENT ID	MATRIX
IQB1487-01	FSBS0067S01	Soil
IQB1487-02	FSBS0067S02	Soil
IQB1487-03	FSBS0066D01	Soil
IQB1487-04	FSBS0066S01	Soil
IQB1487-05	FSBS0066S02	Soil
IQB1487-06	FSBS0065S01	Soil
IQB1487-07	FSBS0064S01	Soil
IQB1487-10	FSBS0068S01	Soil
IQB1487-11	FSBS0014S01	Soil

TestAmerica - Irvine, CA
Nicholas Marz For Michele Chamberlin
Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

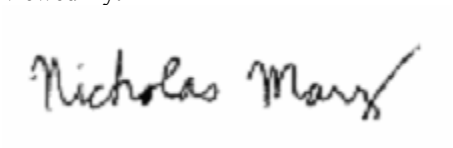
MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB1487

Sampled: 02/13/07
Received: 02/14/07

LABORATORY ID	CLIENT ID	MATRIX
IQB1487-12	FSBS0018S01	Soil
IQB1487-13	FSBS0014S02	Soil
IQB1487-14	FSBS0017S01	Soil

Reviewed By:



TestAmerica - Irvine, CA
Nicholas Marz For Michele Chamberlin
Project Manager

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ANALYTICAL TESTING CORPORATION
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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB1487

Sampled: 02/13/07
Received: 02/14/07

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: FSBS0067S01 (IQB1487-01) - Soil					
EPA 9045C	1	02/13/2007 08:40	02/14/2007 19:45	02/15/2007 11:00	02/15/2007 12:10
Sample ID: FSBS0067S02 (IQB1487-02) - Soil					
EPA 9045C	1	02/13/2007 09:08	02/14/2007 19:45	02/15/2007 11:00	02/15/2007 12:10
Sample ID: FSBS0066D01 (IQB1487-03) - Soil					
EPA 9045C	1	02/13/2007 09:27	02/14/2007 19:45	02/15/2007 11:00	02/15/2007 12:10
Sample ID: FSBS0066S01 (IQB1487-04) - Soil					
EPA 9045C	1	02/13/2007 09:27	02/14/2007 19:45	02/15/2007 11:00	02/15/2007 12:10
Sample ID: FSBS0066S02 (IQB1487-05) - Soil					
EPA 9045C	1	02/13/2007 09:55	02/14/2007 19:45	02/15/2007 11:00	02/15/2007 12:10
Sample ID: FSBS0068S01 (IQB1487-10) - Soil					
EPA 9045C	1	02/13/2007 12:05	02/14/2007 19:45	02/15/2007 11:00	02/15/2007 12:10
Sample ID: FSBS0014S01 (IQB1487-11) - Soil					
EPA 9045C	1	02/13/2007 12:45	02/14/2007 19:45	02/15/2007 11:00	02/15/2007 12:10
Sample ID: FSBS0014S02 (IQB1487-13) - Soil					
EPA 9045C	1	02/13/2007 13:30	02/14/2007 19:45	02/15/2007 11:00	02/15/2007 12:10

TestAmerica - Irvine, CA
Nicholas Marz For Michele Chamberlin
Project Manager

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TestAmerica
ANALYTICAL TESTING CORPORATION
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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQB1487

Sampled: 02/13/07
Received: 02/14/07

METHOD BLANK/QC DATA

POLYCHLORINATED BIPHENYLS (EPA 3545/8082)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B19093 Extracted: 02/19/07											
Blank Analyzed: 02/20/2007 (7B19093-BLK1)											
Aroclor 1016	ND	50	15	ug/kg wet							
Aroclor 1221	ND	50	15	ug/kg wet							
Aroclor 1232	ND	50	10	ug/kg wet							
Aroclor 1242	ND	50	10	ug/kg wet							
Aroclor 1248	ND	50	10	ug/kg wet							
Aroclor 1254	ND	50	10	ug/kg wet							
Aroclor 1260	ND	50	10	ug/kg wet							
Surrogate: Decachlorobiphenyl	*39.1*			*ug/kg wet*	*33.3*		*117*	*45-120*			
LCS Analyzed: 02/20/2007 (7B19093-BS2)											
Aroclor 1016	240	50	15	ug/kg wet	267		90	60-115			
Aroclor 1260	256	50	10	ug/kg wet	267		96	60-115			
Surrogate: Decachlorobiphenyl	*39.1*			*ug/kg wet*	*33.3*		*117*	*45-120*			
Matrix Spike Analyzed: 02/20/2007 (7B19093-MS2)						**Source: IQB1140-15**					
Aroclor 1016	344	50	15	ug/kg wet	266	ND	129	45-120			*M1*
Aroclor 1260	219	50	10	ug/kg wet	266	ND	82	45-120			
Surrogate: Decachlorobiphenyl	*17.4*			*ug/kg wet*	*33.2*		*52*	*45-120*			
Matrix Spike Dup Analyzed: 02/20/2007 (7B19093-MSD2)						**Source: IQB1140-15**					
Aroclor 1016	290	50	15	ug/kg wet	266	ND	109	45-120	17	30	
Aroclor 1260	211	50	10	ug/kg wet	266	ND	79	45-120	4	30	
Surrogate: Decachlorobiphenyl	*19.5*			*ug/kg wet*	*33.2*		*59*	*45-120*			

TestAmerica - Irvine, CA
Nicholas Marz For Michele Chamberlin
Project Manager

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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQB1487

Sampled: 02/13/07
Received: 02/14/07

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B15106 Extracted: 02/15/07											
Blank Analyzed: 02/15/2007 (7B15106-BLK1)											
Antimony	ND	1.0	0.030	mg/kg wet							
Arsenic	ND	0.50	0.25	mg/kg wet							
Barium	ND	0.50	0.080	mg/kg wet							
Beryllium	ND	0.30	0.040	mg/kg wet							
Cadmium	ND	0.50	0.025	mg/kg wet							
Chromium	ND	1.0	0.35	mg/kg wet							
Cobalt	ND	0.50	0.080	mg/kg wet							
Copper	ND	1.0	0.20	mg/kg wet							
Lead	ND	0.50	0.050	mg/kg wet							
Molybdenum	ND	1.0	0.10	mg/kg wet							
Nickel	ND	1.0	0.45	mg/kg wet							
Selenium	ND	1.0	0.20	mg/kg wet							
Silver	ND	0.50	0.050	mg/kg wet							
Thallium	ND	0.50	0.10	mg/kg wet							
Vanadium	ND	1.0	0.40	mg/kg wet							
Zinc	ND	10	1.3	mg/kg wet							
LCS Analyzed: 02/15/2007 (7B15106-BS1)											
Antimony	44.9	1.0	0.030	mg/kg wet	50.0		90	80-120			
Arsenic	44.3	0.50	0.25	mg/kg wet	50.0		89	80-120			
Barium	44.7	0.50	0.080	mg/kg wet	50.0		89	80-120			
Beryllium	50.1	0.30	0.040	mg/kg wet	50.0		100	80-120			
Cadmium	44.3	0.50	0.025	mg/kg wet	50.0		89	80-120			
Chromium	47.0	1.0	0.35	mg/kg wet	50.0		94	80-120			
Cobalt	47.0	0.50	0.080	mg/kg wet	50.0		94	80-120			
Copper	47.0	1.0	0.20	mg/kg wet	50.0		94	80-120			
Lead	44.4	0.50	0.050	mg/kg wet	50.0		89	80-120			
Molybdenum	45.5	1.0	0.10	mg/kg wet	50.0		91	80-120			
Nickel	47.3	1.0	0.45	mg/kg wet	50.0		95	80-120			
Selenium	41.6	1.0	0.20	mg/kg wet	50.0		83	80-120			
Silver	28.1	0.50	0.050	mg/kg wet	25.0		112	80-120			
Thallium	44.3	0.50	0.10	mg/kg wet	50.0		89	80-120			
Vanadium	47.0	1.0	0.40	mg/kg wet	50.0		94	80-120			
Zinc	40.9	10	1.3	mg/kg wet	50.0		82	80-120			

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1891264
Report Number: IQB1487

Sampled: 02/13/07
Received: 02/14/07

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B15106 Extracted: 02/15/07											
Matrix Spike Analyzed: 02/15/2007 (7B15106-MS1)						**Source: IQB1487-01**					
Antimony	14.6	1.1	0.034	mg/kg dry	57.3	0.11	25	75-125			*M2*
Arsenic	45.9	0.57	0.29	mg/kg dry	57.3	2.5	76	75-125			
Barium	132	0.57	0.092	mg/kg dry	57.3	93	68	75-125			*M2*
Beryllium	48.5	0.34	0.046	mg/kg dry	57.3	0.55	84	75-125			
Cadmium	44.6	0.57	0.029	mg/kg dry	57.3	0.23	77	75-125			
Chromium	65.2	1.1	0.40	mg/kg dry	57.3	19	81	75-125			
Cobalt	50.5	0.57	0.092	mg/kg dry	57.3	5.5	79	75-125			
Copper	49.7	1.1	0.23	mg/kg dry	57.3	8.9	71	75-125			*M2*
Lead	52.4	0.57	0.057	mg/kg dry	57.3	4.5	84	75-125			
Molybdenum	45.8	1.1	0.11	mg/kg dry	57.3	0.56	79	75-125			
Nickel	55.2	1.1	0.52	mg/kg dry	57.3	11	77	75-125			
Selenium	41.2	1.1	0.23	mg/kg dry	57.3	0.30	71	75-125			*M2*
Silver	27.6	0.57	0.057	mg/kg dry	28.6	ND	97	75-125			
Thallium	48.8	0.57	0.11	mg/kg dry	57.3	0.27	85	75-125			
Vanadium	90.0	1.1	0.46	mg/kg dry	57.3	34	98	75-125			
Zinc	76.3	11	1.5	mg/kg dry	57.3	48	49	75-125			*M2*
Matrix Spike Dup Analyzed: 02/15/2007 (7B15106-MSD1)						**Source: IQB1487-01**					
Antimony	15.7	1.1	0.034	mg/kg dry	57.3	0.11	27	75-125	7	20	*M2*
Arsenic	45.3	0.57	0.29	mg/kg dry	57.3	2.5	75	75-125	1	20	
Barium	133	0.57	0.092	mg/kg dry	57.3	93	70	75-125	1	20	*M2*
Beryllium	48.1	0.34	0.046	mg/kg dry	57.3	0.55	83	75-125	1	20	
Cadmium	44.9	0.57	0.029	mg/kg dry	57.3	0.23	78	75-125	1	20	
Chromium	64.2	1.1	0.40	mg/kg dry	57.3	19	79	75-125	2	20	
Cobalt	50.6	0.57	0.092	mg/kg dry	57.3	5.5	79	75-125	0	20	
Copper	49.4	1.1	0.23	mg/kg dry	57.3	8.9	71	75-125	1	20	*M2*
Lead	52.5	0.57	0.057	mg/kg dry	57.3	4.5	84	75-125	0	20	
Molybdenum	45.5	1.1	0.11	mg/kg dry	57.3	0.56	78	75-125	1	20	
Nickel	55.0	1.1	0.52	mg/kg dry	57.3	11	77	75-125	0	20	
Selenium	41.4	1.1	0.23	mg/kg dry	57.3	0.30	72	75-125	1	20	*M2*
Silver	27.7	0.57	0.057	mg/kg dry	28.6	ND	97	75-125	0	20	
Thallium	49.3	0.57	0.11	mg/kg dry	57.3	0.27	86	75-125	1	20	
Vanadium	89.0	1.1	0.46	mg/kg dry	57.3	34	96	75-125	1	20	
Zinc	76.8	11	1.5	mg/kg dry	57.3	48	50	75-125	1	20	*M2*

TestAmerica - Irvine, CA
Nicholas Marz For Michele Chamberlin
Project Manager

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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQB1487

Sampled: 02/13/07
Received: 02/14/07

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B15107 Extracted: 02/15/07											
Blank Analyzed: 02/15/2007 (7B15107-BLK1)											
Aluminum	ND	10	5.0	mg/kg wet							
Boron	ND	5.0	1.0	mg/kg wet							
Lithium	ND	6.3	3.8	mg/kg wet							
Potassium	34.2	50	19	mg/kg wet							*J*
Sodium	ND	50	24	mg/kg wet							
LCS Analyzed: 02/15/2007 (7B15107-BS1)											
Aluminum	43.1	10	5.0	mg/kg wet	50.0		86	80-120			
Boron	46.6	5.0	1.0	mg/kg wet	50.0		93	80-120			
Lithium	47.6	6.3	3.8	mg/kg wet	50.0		95	80-120			
Potassium	510	50	19	mg/kg wet	500		102	80-120			
Sodium	485	50	24	mg/kg wet	500		97	80-120			
Matrix Spike Analyzed: 02/15/2007 (7B15107-MS1)						**Source: IQB1487-01**					
Aluminum	16700	11	5.7	mg/kg dry	57.3	14000	4712	75-125			*MHA*
Boron	56.1	5.7	1.1	mg/kg dry	57.3	4.0	91	75-125			
Lithium	75.1	7.2	4.4	mg/kg dry	57.3	23	91	75-125			
Potassium	4210	57	22	mg/kg dry	573	3500	124	75-125			*MHA*
Sodium	622	57	27	mg/kg dry	573	73	96	75-125			
Matrix Spike Dup Analyzed: 02/15/2007 (7B15107-MSD1)						**Source: IQB1487-01**					
Aluminum	16000	11	5.7	mg/kg dry	57.3	14000	3490	75-125	4	20	*MHA*
Boron	55.6	5.7	1.1	mg/kg dry	57.3	4.0	90	75-125	1	20	
Lithium	73.3	7.2	4.4	mg/kg dry	57.3	23	88	75-125	2	20	
Potassium	3960	57	22	mg/kg dry	573	3500	80	75-125	6	20	*MHA*
Sodium	583	57	27	mg/kg dry	573	73	89	75-125	6	20	

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Nicholas Marz For Michele Chamberlin
Project Manager

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Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB1487

Sampled: 02/13/07
Received: 02/14/07

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B16119 Extracted: 02/16/07											
Blank Analyzed: 02/16/2007 (7B16119-BLK1)											
Zirconium	ND	25	1.5	mg/kg wet							
LCS Analyzed: 02/16/2007 (7B16119-BS1)											
Zirconium	47.8	25	1.5	mg/kg wet	50.0		96	80-120			
Matrix Spike Analyzed: 02/16/2007 (7B16119-MS1)						**Source: IQB1216-06**					
Zirconium	29.9	28	1.7	mg/kg dry	56.3	1.7	50	75-125			*M2*
Matrix Spike Dup Analyzed: 02/16/2007 (7B16119-MSD1)						**Source: IQB1216-06**					
Zirconium	29.1	28	1.7	mg/kg dry	56.3	1.7	49	75-125	3	20	*M2*

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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B15100 Extracted: 02/15/07											
Duplicate Analyzed: 02/15/2007 (7B15100-DUP1)						**Source: IQB1455-01**					
pH	7.09	NA	0.00	pH Units		7.05			1	5	
Duplicate Analyzed: 02/15/2007 (7B15100-DUP2)						**Source: IQB1455-14**					
pH	8.46	NA	0.00	pH Units		8.43			0	5	
Batch: 7B16117 Extracted: 02/16/07											
Blank Analyzed: 02/19/2007 (7B16117-BLK1)											
Percent Solids	ND	0.10	0.10	%							
Duplicate Analyzed: 02/19/2007 (7B16117-DUP1)						**Source: IQB1519-01**					
Percent Solids	18.0	0.10	0.10	%		18			0	20	
Duplicate Analyzed: 02/19/2007 (7B16117-DUP2)						**Source: IQB1519-02**					
Percent Solids	19.9	0.10	0.10	%		20			1	20	
Batch: 7B22090 Extracted: 02/22/07											
Blank Analyzed: 02/22/2007 (7B22090-BLK1)											
Perchlorate	ND	4.0	0.80	ug/l							
LCS Analyzed: 02/22/2007 (7B22090-BS1)											
Perchlorate	48.4	4.0	0.80	ug/l	50.0		97	85-115			
Matrix Spike Analyzed: 02/22/2007 (7B22090-MS1)						**Source: IQB1487-06**					
Perchlorate	48.1	4.0	0.80	ug/l	50.0	ND	96	80-120			

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Sampled: 02/13/07
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METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B22090 Extracted: 02/22/07											
Matrix Spike Dup Analyzed: 02/23/2007 (7B22090-MSD1)						**Source: IQB1487-06**					
Perchlorate	48.6	4.0	0.80	ug/l	50.0	ND	97	80-120	1	20	

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DATA QUALIFIERS AND DEFINITIONS

A-01	Sample result might be biased high due to coelution of Aroclors 1254 and 1260.
J	Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
M2	The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
MHA	Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

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Certification Summary

TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
EPA 160.3 MOD	Soil	N/A	N/A
EPA 314.0 DI-RFI	Soil		
EPA 3545/8081A	Soil	X	X
EPA 3545/8082	Soil	X	X
EPA 6010B	Soil	X	X
EPA 6020	Soil	X	X
EPA 8082	Soil	X	X
EPA 9045C	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

Paradigm Labs - SUB
5500 Business Dr. - Wilmington, NC 28405
Analysis Performed: 1613-Dioxin-HR OUT
Samples: IQB1487-01, IQB1487-03, IQB1487-04

Weck Laboratories, Inc
14859 E. Clark Avenue - City of Industry, CA 91745
Analysis Performed: Mercury-7471 (dry wt)
Samples: IQB1487-01, IQB1487-03, IQB1487-04

TestAmerica - Irvine, CA
Nicholas Marz For Michele Chamberlin
Project Manager

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SGS

Laboratory Results

Ms. Michele Chamberlin
Test America
17461 Derian Ave.
Suite 100
Irvine CA 92614

Phone: 949-261-1022
Fax:

Dear Ms. Chamberlin:

Enclosed is a full data package containing the final results for samples received by Paradigm Analytical Labs, Inc. on February 16, 2007 under your project name "IQB1487". The samples were analyzed by Method 1613 following Paradigm's Standard Operating Procedures and are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards.

Number of Samples Received:	3
Your Project Reference:	IQB1487
PAL Project Number:	G579-225

We appreciate your business and look forward to working with you again. Please contact me at 910-350-1903 if you have questions or need additional technical support.

Sincerely,

Christopher K. Cornwell
Assistant Director

3/1/07
Date

5500 Business Dr., Wilmington, NC 28405 t (910) 350-1903 f (910) 350-1557 www.sgs.com

D6136120605.6

Member of the SGS Group

SGS

Case Narrative
SGS Project: **G579-225**
Project Name: **IBQ1487**

For Method: 1613

- The submitted samples were accepted into the lab on February 16th, 2007 and extracted on February 19th, 2007 by method 3540C. The sample extracts and associated QC extracts were then processed through clean-up by method 3630/3620 and analyzed by HRGC/HRMS for methods 1613.

Craig R. Tronzo
Data Validation/QA Officer

Secondary Review

W. Mike Larkins Date
Technical Director

Or Heather Patterson 01Mar07
Heather Patterson Date
Director

SGS

Table of Contents

Section 1: Cover Letter/Case Narrative

Contains the Table of Contents, a project narrative, the client and PAL project identifiers, the number and type of samples, the methodology used to process the samples, and a summary table of sample results. A listing of current certifications by state, a table of abbreviations and qualifiers and the Toxic Equivalent Factors (TEF) are also supplied.

Section 2: Project Information

Contains the chain-of-custody(s), internal chain-of-custody(s) if applicable, sample login summary, sample receipt checklist, and any other project/client specific information.

Section 3: Sample Analytical Results

Contains results for client samples. Sample results include two pages of summarized analytical data and the associated raw data. The raw data includes a quantitation report from the instrumentation used that lists, ion areas, ratios, retention times, concentrations, and signal-to-noise ratios. It also has the selected ion current profiles (SICPs) for all homolog groups and any manual integrations.

Section 4: Quality Control Analytical Results

Contains results for each analytical workgroup associated with the submitted samples. A workgroup consists of the Lab Method Blank (LMB) and the Ongoing Precision and Recovery sample (OPR). All sample preparation data, including dry weight determinations, extraction logs, clean-up logs and observation notes are also documented. Any other supporting QC data will be documented here upon client request.

Section 5: Initial Calibration

Contains a table summarizing calibration data such as relative response factors, concentrations, and percent relative standard deviation. This section also contains related daily instrument QC information: GC performance data, mass resolution check, windows defining mix, and SICPs for all homolog groups and any manual integrations as well as the injection prep and instrument run logs.

Section 6: Continuing Calibration Data

Contains all daily instrument quality control information. This includes mass resolution checks, a table summarizing the window defining peaks, SICPs for the first and last eluters for each homolog group, SICPs documenting GC performance, a summary quantitation report showing RRFs for the Ccal and Ical, and SICPs for all homolog groups and any manual integrations, injection prep and instrumentation runlogs.

SGS

List of Qualifiers

B Analyte was detected in the Lab Method Blank at a level above the Reporting Limit.

EDL "Estimated Detection Limit"

EMPC "Estimated Maximum Possible Concentration"

ppt Parts-per-trillion (pg/g; ng/L)

V Recovery is below quality control limit. The data has been validated based on a favorable signal-to-noise and detection limit.

Outside quality control limits

* See case narrative

An average uncertainty of 30% can be routinely achieved as concluded from the evaluation of HRGC-HRMS standard operating procedures. The following flags warn the data user of situations where the uncertainty may be greater than stated.

A Amount detected is less than the Lower Calibration Limit.

J Amount detected is between the Method Detection Limit and the Lower Calibration Limit.

E Amount detected is greater than the Upper Calibration Limit.

S The amount of analyte present has saturated the detector. This situation results in an underestimation of the affected analyte(s).

Q Indicates the presence of a quantitative interference. This situation may result in an underestimation of the affected analyte(s).

I Indicates the presence of a qualitative interference that could cause a false positive or an overestimation of the affected analyte(s).

DPE Indicates the presence of a peak in the polychlorinated diphenylether channel that could cause a false positive or an overestimation of the affected analyte(s).

SGS

Toxic Equivalency Factors

Analyte	WHO* 1998	WHO* 2005	International-89	MADEP+
2,3,7,8-TCDD	1	1	1	1
1,2,3,7,8-PeCDD	1	1	0.5	0.5
1,2,3,4,7,8-HxCDD	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDD	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDD	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDD	0.01	0.01	0.01	0.1
OCDD	0.0001	0.0003	0.001	0.001
2,3,7,8-TCDF	0.1	0.1	0.1	0.1
1,2,3,7,8-PeCDF	0.05	0.03	0.05	0.5
2,3,4,7,8-PeCDF	0.5	0.3	0.5	0.5
1,2,3,4,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDF	0.1	0.1	0.1	0.1
2,3,4,6,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDF	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDF	0.01	0.01	0.01	0.1
1,2,3,4,7,8,9-HpCDF	0.01	0.01	0.01	0.1
OCDF	0.0001	0.0003	0.001	0.001

* World Health Organization
+ Massachusetts Department of Environmental Protection

Method 1613 - Blank Results

LMB

Analytical Data Summary Sheet

Analyte	Amount (pg/g)	EDL (pg/g)	Adj. RL (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.109	1.00			
1,2,3,7,8-PeCDD	ND	0.109	5.00			
1,2,3,4,7,8-HxCDD	ND	0.133	5.00			
1,2,3,6,7,8-HxCDD	ND	0.133	5.00			
1,2,3,7,8,9-HxCDD	ND	0.132	5.00			
1,2,3,4,6,7,8-HpCDD	ND	0.202	5.00			
OCDD	0.734	0.358	10.0	44:08	0.88	A
2,3,7,8-TCDF	ND	0.128	1.00			
1,2,3,7,8-PeCDF	ND	0.0690	5.00			
2,3,4,7,8-PeCDF	0.0880	0.0710	5.00	33:51	1.61	A
1,2,3,4,7,8-HxCDF	ND	0.0976	5.00			
1,2,3,6,7,8-HxCDF	ND	0.0914	5.00			
2,3,4,6,7,8-HxCDF	ND	0.0982	5.00			
1,2,3,7,8,9-HxCDF	ND	0.130	5.00			
1,2,3,4,6,7,8-HpCDF	ND	0.120	5.00			
1,2,3,4,7,8,9-HpCDF	ND	0.190	5.00			
OCDF	ND	0.275	10.0			
Total TCDDs	ND	0.109	1.00			
Total PeCDDs	ND	0.109	5.00			
Total HxCDDs	ND	0.133	5.00			
Total HpCDDs	ND	0.202	5.00			
Total TCDFs	ND	0.128	1.00			
Total PeCDFs	0.0880	0.0700	5.00			A
Total HxCDFs	ND	0.103	5.00			
Total HpCDFs	ND	0.151	5.00			
WHO-2005 TEQ (ND=0)	0.0266					
WHO-2005 TEQ (ND=½)	0.346					

Laboratory Information

Sample ID:	LMB14123	
Extraction Date:	19-Feb-07	
Analysis Date:	22-Feb-07	18:49

Sample Information

Report Basis:	Dry Weight	
Matrix:	Soil	
Weight / Volume:	10.00	Grams
Solids / Lipids:	100	%
Original pH :	NA	
Batch ID:	WG14123	
Filename:	a22feb07a-4	
Retchk:	a22feb07a-1	
Begin ConCal:	a22feb07a-1	
Initial Cal:	m1613-071006e	

Method 1613 - Blank Results

LMB

Analytical Data Summary Sheet

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
$^{13}C_{12}$-2,3,7,8-TCDD	2.00	1.82	91.0	31:09	0.78	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	2.00	1.77	88.3	34:02	1.59	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	2.00	1.80	89.9	36:36	1.34	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	2.00	1.83	91.3	36:41	1.19	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	2.00	1.70	84.8	39:57	1.06	
$^{13}C_{12}$-OCDD	4.00	3.07	76.8	44:07	0.90	
$^{13}C_{12}$-2,3,7,8-TCDF	2.00	1.86	93.0	30:25	0.79	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	2.00	1.81	90.7	33:14	1.58	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	2.00	1.76	88.2	33:51	1.59	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	2.00	1.85	92.6	35:53	0.52	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	2.00	1.91	95.4	35:60	0.52	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	2.00	1.87	93.6	36:28	0.53	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	2.00	1.75	87.4	37:14	0.53	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	2.00	1.70	84.8	38:42	0.45	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	2.00	1.64	82.2	40:36	0.45	
Cleanup Standards						
$^{37}Cl_4$-2,3,7,8-TCDD	0.400	0.363	90.8	31:10	-	
Injection Standards						
$^{13}C_{12}$-1,2,3,4-TCDD	2.00			30:37	0.78	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	2.00			36:55	1.25	

Laboratory Information

Sample ID: LMB14123

Extraction Date: 19-Feb-07

Analysis Date: 22-Feb-07 18:49

Analyzed by: JW

Date: 02.02.07

Sample Information

Report Basis:	Dry Weight	
Matrix:	Soil	
Weight / Volume:	10.00	Grams
Solids / Lipids:	100	%
Original pH :	NA	
Batch ID:	WG14123	
Filename:	a22feb07a-4	
Retchk:	a22feb07a-1	
Begin ConCal:	a22feb07a-1	
Initial Cal:	m1613-071006e	

Reviewed by: HMF

Date: 02Mar07

Analytical Results

for

Ongoing Precision Result (OPR)

Analyte	Spiked	AMT	REC	Range pg/ul		Flag
	pg/ul	pg/ul	%	Lower	Upper	
2,3,7,8-TCDD	10.0	9.56	95.6	6.70	15.8	
1,2,3,7,8-PeCDD	50.0	48.6	97.2	35.0	71.0	
1,2,3,4,7,8-HxCDD	50.0	50.2	100	35.0	82.0	
1,2,3,6,7,8-HxCDD	50.0	51.1	102	38.0	67.0	
1,2,3,7,8,9-HxCDD	50.0	49.8	99.5	32.0	81.0	
1,2,3,4,6,7,8-HpCDD	50.0	49.2	98.5	35.0	70.0	
OCDD	100	96.6	96.6	78.0	144	
2,3,7,8-TCDF	10.0	9.16	91.6	7.50	15.8	
1,2,3,7,8-PeCDF	50.0	49.4	98.8	40.0	67.0	
2,3,4,7,8-PeCDF	50.0	49.5	98.9	34.0	80.0	
1,2,3,4,7,8-HxCDF	50.0	49.2	98.4	36.0	67.0	
1,2,3,6,7,8-HxCDF	50.0	49.8	99.7	42.0	65.0	
2,3,4,6,7,8-HxCDF	50.0	49.4	98.9	35.0	78.0	
1,2,3,7,8,9-HxCDF	50.0	49.2	98.5	39.0	65.0	
1,2,3,4,6,7,8-HpCDF	50.0	49.5	98.9	41.0	61.0	
1,2,3,4,7,8,9-HpCDF	50.0	48.1	96.1	39.0	69.0	
OCDF	100	103	103	63.0	170	

= Outside range limits
* = Ion Ratio Out

QC Information

OPR Lab ID:	OPR14123
Extraction Date:	19-Feb-07
Analysis Date:	22-Feb-07
Method:	1613

Sample Information

Matrix:	Soil

File Information

OPR Filename :	a22feb07a-2
Retchk:	a22feb07a-1
Begin ConCal:	a22feb07a-1
Initial Cal:	m1613-071006e

Analytical Results
for
Ongoing Precision Result (OPR)

Labeled Standard	Spiked pg/ul	AMT pg/ul	REC %	Range pg/ul Lower	Range pg/ul Upper	Flag
Extraction Standards						
$^{13}C_{12}$-2,3,7,8-TCDD	100	91.0	91.0	20.0	175	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	100	86.8	86.8	21.0	227	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	100	91.5	91.5	21.0	193	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	100	89.1	89.1	25.0	163	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	100	86.9	86.9	26.0	166	
$^{13}C_{12}$-OCDD	200	159	79.7	26.0	397	
$^{13}C_{12}$-2,3,7,8-TCDF	100	93.9	93.9	22.0	152	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	100	90.9	90.9	21.0	192	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	100	87.1	87.1	13.0	328	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	100	89.7	89.7	19.0	202	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	100	90.4	90.4	21.0	159	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	100	93.1	93.1	22.0	176	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	100	90.2	90.2	17.0	205	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	100	88.1	88.1	21.0	158	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	100	89.0	89.0	20.0	186	
Cleanup Standards						
$^{37}C_{l4}$-2,3,7,8-TCDD	20.0	18.8	93.8	6.20	38.2	

Form Version:[OPRv3.474]1613

QC Information

OPR Lab ID:	OPR14123
Extraction Date:	19-Feb-07
Analysis Date:	22-Feb-07
Method:	1613

Sample Information

Matrix:	Soil

File Information

OPR Filename :	a22feb07a-2
Retchk:	a22feb07a-1
Begin ConCal:	a22feb07a-1
Initial Cal:	m1613-071006e

Reviewed by: _____

Date Reviewed: 2/27/07

TestAmerica
ANALYTICAL TESTING CORPORATION

SUBCONTRACT ORDER - PROJECT # IQB1487 G579-225

SENDING LABORATORY:	RECEIVING LABORATORY:
TestAmerica - Irvine, CA 17461 Derian Avenue. Suite 100 Irvine, CA 92614 Phone: (949) 261-1022 Fax: (949) 260-3297 Project Manager: Michele Chamberlin	Paradigm Labs - SUB 5500 Business Dr. Wilmington, NC 28405 Phone :(910) 350-1903 Fax: (910) 350-1557 Project Location: California

Work Order Comments: Level 4 QC. Boeing EDD, Report to MDL w/ J flags, report in dry weight, 2 week TAT.

Standard TAT is requested unless specific due date is requested => Due Date:_____ Initials:_____

Analysis	Expiration	Comments
Sample ID: IQB1487-01 Soil	**Sampled: 02/13/07 08:40** ✓	
1613-Dioxin-HR OUT	02/27/07 08:40	Sub=Paradigm,17 cngnrs,dry wt(soil), 2 wkTAT,Jflag
Level 4 + EDD-OUT	03/13/07 08:40	Sub to Paradigm, TAT=2 weeks, EDD=Boeing, CD
Containers Supplied:		
2 oz jar (IQB1487-01C)		
Sample ID: IQB1487-03 Soil	**Sampled: 02/13/07 09:27**	
1613-Dioxin-HR OUT	02/27/07 09:27	Sub=Paradigm,17 cngnrs,dry wt(soil), 2 wkTAT,Jflag
Level 4 + EDD-OUT	03/13/07 09:27	Sub to Paradigm, TAT=2 weeks, EDD=Boeing, CD
Containers Supplied:		
2 oz jar (IQB1487-03C)		
Sample ID: IQB1487-04 Soil	**Sampled: 02/13/07 09:27**	
1613-Dioxin-HR OUT	02/27/07 09:27	Sub=Paradigm,17 cngnrs,dry wt(soil), 2 wkTAT,Jflag
Level 4 + EDD-OUT	03/13/07 09:27	Sub to Paradigm, TAT=2 weeks, EDD=Boeing, CD
Containers Supplied:		
2 oz jar (IQB1487-04C)		

SAMPLE INTEGRITY:

All containers intact: ☐ Yes ☐ No | Sample labels/COC agree: ☐ Yes ☐ No | Samples Received On Ice:: ☒ Yes ☐ No

Custody Seals Present: ☐ Yes ☐ No | Samples Preserved Properly: ☐ Yes ☐ No | Samples Received at (temp): 2.8°C

Released By	Date	Time	Received By	Date	Time
[signature]	2/15/07		[signature]	2/16/07	11:55am
Released By	Date	Time	Received By	Date	Time

Weck Laboratories, Inc.
Analytical Laboratory Services - Since 1964

14859 E. Clark Ave., Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634
info@wecklabs.com www.wecklabs.com

CERTIFICATE OF ANALYSIS

Client: TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine, CA 92614
Attention: Michele Chamberlin

Phone: (949) 261-1022
Fax: (949) 260-3297

Report Date: 03/02/07 16:55
Received Date: 02/15/07 10:10
Turn Around: Normal

Work Order #: 7021518

Client Project: IQB1487

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Michele Chamberlin :

Enclosed are the results of analyses for samples received 02/15/07 10:10 with the Chain of Custody document. The samples were received in good condition, at 5.7 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Reviewed by:

Taylor Maligmat

Project Manager

Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7021518
Project ID: IQB1487

Date Received: 02/15/07 10:10
Date Reported: 03/02/07 16:55

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Laboratory	Matrix	Date Sampled
IQB1487-01	client		7021518-01	Solid	02/13/07 08:40
IQB1487-03	client		7021518-02	Solid	02/13/07 09:27
IQB1487-04	client		7021518-03	Solid	02/13/07 09:27

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Weck Laboratories, Inc.
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Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7021518
Project ID: IQB1487

Date Received: 02/15/07 10:10
Date Reported: 03/02/07 16:55

QUALITY CONTROL SECTION

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TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7021518
Project ID: IQB1487

Date Received: 02/15/07 10:10
Date Reported: 03/02/07 16:55

Metals (Non-Aqueous) by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch W7B0623 - EPA 7471A										
Blank (W7B0623-BLK1)				Analyzed: 02/22/07						
Mercury, Total	0.00108	0.010	mg/kg wet							J
LCS (W7B0623-BS1)				Analyzed: 02/22/07						
Mercury, Total	0.0827	0.010	mg/kg wet	0.0833		99.3	80-120			
Matrix Spike (W7B0623-MS1)	**Source: 7021327-10**			Analyzed: 02/22/07						
Mercury, Total	0.146	0.011	mg/kg dry	0.0926	0.052	102	70-130			
Matrix Spike (W7B0623-MS2)	**Source: 7021429-05**			Analyzed: 02/22/07						
Mercury, Total	0.104	0.011	mg/kg dry	0.0908	0.017	95.8	70-130			
Matrix Spike Dup (W7B0623-MSD1)	**Source: 7021327-10**			Analyzed: 02/22/07						
Mercury, Total	0.148	0.011	mg/kg dry	0.0897	0.052	107	70-130	1.36	25	
Matrix Spike Dup (W7B0623-MSD2)	**Source: 7021429-05**			Analyzed: 02/22/07						
Mercury, Total	0.102	0.011	mg/kg dry	0.0923	0.017	92.1	70-130	1.94	25	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7021518
Project ID: IQB1487

Date Received: 02/15/07 10:10
Date Reported: 03/02/07 16:55

Notes and Definitions

J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070214_01

Page: 1 of 2

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:	
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:			
Report to:	Lisa Tucker	Project Number:	1891264				
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan				
	Suite 300	PM Phone #:	(626) 568-6897				
	San Diego	Field Contact:					
	CA	Field Contact #:					
	92123	Lab Name:	Test America, Inc.				
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin				
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100				
			Irvine, CA 92606				
		Lab Phone:	(949) 261-1022				

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Metals 6020 Soil Arsenic	Perchlorate 314 Soil DI-WET	pH by SW9045C - Soil	Comments
FSBS0021S01	Soil	2/14/2007	9:14	1			H		Hold analysis
FSBS0022S01	Soil	2/14/2007	9:20	1			10		
FSBS0022S02	Soil	2/14/2007	9:27	1			H		Hold analysis
FSBS0023S01	Soil	2/14/2007	9:29	1			10		
FSBS0024S01	Soil	2/14/2007	9:35	1			H		Hold analysis
FSBS0024S02	Soil	2/14/2007	9:40	1			H		Hold analysis
FSBS0025S01	Soil	2/14/2007	9:49	1			H		Hold analysis
FSBS0025S02	Soil	2/14/2007	9:58	1			H		Hold analysis
FSBS0061S01	Soil	2/14/2007	10:35	1			10		
FSBS0061S02	Soil	2/14/2007	10:47	1			H		Hold analysis

Requested Analyses

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract Hold

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/15/2007		2/15/07		2/15/07		2-15-07
Company: MWH	Time: 1445	Company: TEST AMERICA	Time: 1445	Company: TEST AMERICA	Time: 1915	Company:	Time: 1915

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

2.6°C

466

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070214_01

Page: 2 of 2

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:	
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:			
Report to:	Lisa Tucker	Project Number:	1891264				
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan				
	Suite 300	PM Phone #:	(626) 568-6897				
	San Diego	Field Contact:					
	CA	Field Contact #:					
	92123	Lab Name:	Test America, Inc.				
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin				
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100				
			Irvine, CA 92606				
		Lab Phone:	(949) 261-1022				

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Metals 6020 Soil Arsenic	Perchlorate 314 Soil DI-WET	pH by SW9045C - Soil	Comments
FSBS0026S01	Soil	2/14/2007	13:15	1			H		Hold analysis
FSBS0027S01	Soil	2/14/2007	13:22	1			10		
FSBS0029S01	Soil	2/14/2007	13:27	1			H		Hold analysis
FSBS0028S01	Soil	2/14/2007	13:31	1			10		
FSBS0030S01	Soil	2/14/2007	13:36	1			H		Hold analysis
FSBS0063S01	Soil	2/14/2007	13:50	1	H	H		10	Hold all analysis except pH
FSBS0015S01	Soil	2/14/2007	14:10	1	10	10		10	

Requested Analyses

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract Hold

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
Cat Farao	2/15/2007	BD Deeln	2/15/07	BD Deeln	2/15/07	Hanafee	2-15-07
Company: MWH	Time: 1445	Company: TES AMERICA	Time: 1445	Company: TES AMERICA	Time: 1920	Company:	Time: 1920

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

2.6°C

TestAmerica
ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project: SSFL Group 8 - SSPN
1891263

Sampled: 02/14/07
Received: 02/15/07
Revised: 03/12/07 12:22

NELAP #01108CA California ELAP#1197 CSDLAC #10256

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.
This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact, at 3°C, on ice and with chain of custody documentation.

HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

COMMENTS: Results that fall between the MDL and RL are 'J' flagged.

SUBCONTRACTED: No analyses were subcontracted to an outside laboratory.

ADDITIONAL INFORMATION: Enclosed are complete final results. There were two results reported for Perchlorate on sample IQB1684-02 due to matrix inferences and both of these results can be considered estimates only. The report was revised to correct the sample ID's for IQB1684-16 and IQB1684-17.

LABORATORY ID	CLIENT ID	MATRIX
IQB1684-02	FSBS0022S01	Soil
IQB1684-04	FSBS0023S01	Soil
IQB1684-09	FSBS0061S01	Soil
IQB1684-12	FSBS0027S01	Soil
IQB1684-14	FSBS0028S01	Soil
IQB1684-16	FSBS0063S01	Soil
IQB1684-17	FSBS0015S01	Soil

Reviewed By:

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - SSPN
1891263
Report Number: IQB1684

Sampled: 02/14/07
Received: 02/15/07

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: FSBS0063S01 (IQB1684-16) - Soil					
EPA 9045C	1	02/14/2007 13:50	02/15/2007 19:15	02/16/2007 09:50	02/16/2007 11:30
Sample ID: FSBS0015S01 (IQB1684-17) - Soil					
EPA 9045C	1	02/14/2007 14:10	02/15/2007 19:15	02/16/2007 09:50	02/16/2007 11:30

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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - SSPN
1891263
Report Number: IQB1684

Sampled: 02/14/07
Received: 02/15/07

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B22114 Extracted: 02/22/07											
Blank Analyzed: 02/22/2007 (7B22114-BLK1)											
Arsenic	ND	0.50	0.25	mg/kg wet							
LCS Analyzed: 02/22/2007 (7B22114-BS1)											
Arsenic	42.2	0.50	0.25	mg/kg wet	50.0		84	80-120			
Matrix Spike Analyzed: 02/22/2007 (7B22114-MS1)						**Source: IQB2309-02**					
Arsenic	40.4	0.54	0.27	mg/kg dry	53.6	1.9	72	75-125			*M2*
Matrix Spike Dup Analyzed: 02/22/2007 (7B22114-MSD1)						**Source: IQB2309-02**					
Arsenic	42.5	0.54	0.27	mg/kg dry	53.6	1.9	76	75-125	5	20	

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9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - SSPN
1891263
Report Number: IQB1684

Sampled: 02/14/07
Received: 02/15/07

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B16073 Extracted: 02/16/07											
Duplicate Analyzed: 02/16/2007 (7B16073-DUP1)						**Source: IQB1681-01**					
pH	7.56	NA	0.00	pH Units		7.55			0	5	
Batch: 7B16117 Extracted: 02/16/07											
Blank Analyzed: 02/19/2007 (7B16117-BLK1)											
Percent Solids	ND	0.10	0.10	%							
Duplicate Analyzed: 02/19/2007 (7B16117-DUP1)						**Source: IQB1519-01**					
Percent Solids	18.0	0.10	0.10	%		18			0	20	
Duplicate Analyzed: 02/19/2007 (7B16117-DUP2)						**Source: IQB1519-02**					
Percent Solids	19.9	0.10	0.10	%		20			1	20	
Batch: 7B22090 Extracted: 02/22/07											
Blank Analyzed: 02/22/2007 (7B22090-BLK1)											
Perchlorate	ND	4.0	0.80	ug/l							
LCS Analyzed: 02/22/2007 (7B22090-BS1)											
Perchlorate	48.4	4.0	0.80	ug/l	50.0		97	85-115			
Matrix Spike Analyzed: 02/22/2007 (7B22090-MS1)						**Source: IQB1487-06**					
Perchlorate	48.1	4.0	0.80	ug/l	50.0	ND	96	80-120			
Matrix Spike Dup Analyzed: 02/23/2007 (7B22090-MSD1)						**Source: IQB1487-06**					
Perchlorate	48.6	4.0	0.80	ug/l	50.0	ND	97	80-120	1	20	

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San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - SSPN
1891263
Report Number: IQB1684

Sampled: 02/14/07
Received: 02/15/07

DATA QUALIFIERS AND DEFINITIONS

M2 The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).

N1 See case narrative.

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

RPD Relative Percent Difference

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San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - SSPN
1891263
Report Number: IQB1684

Sampled: 02/14/07
Received: 02/15/07

Certification Summary

TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
EPA 160.3 MOD	Soil	N/A	N/A
EPA 314.0 DI-RFI	Soil		
EPA 6020	Soil	X	X
EPA 9045C	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070216_00

Page: 1 of 1

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:	
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:			
Report to:	Lisa Tucker	Project Number:	1891264				
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan				
	Suite 300	PM Phone #:	(626) 568-6897				
	San Diego	Field Contact:					
	CA	Field Contact #:					
	92123	Lab Name:	Test America, Inc.				
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin				
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100				
			Irvine, CA 92606				
		Lab Phone:	(949) 261-1022				

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Metals 6010B/6020 Soil Group 8	Metals 7471A Soil Mercury	PCB by SW8082 - Soil	Perchlorate 314 Soil DI-WET	pH by SW9045C - Soil	SVOCs by SW8270C SIM - Soil	TPH by SW8015BM - Soil	VOC 8260B Soil Full	Comments
FSBS0011D01	Soil	2/16/2007	8:36	6	10	10	10	10	10	10	10	10	10	Sleeve(2), Poly(1), Encore(3)
FSBS0011S01	Soil	2/16/2007	8:36	6	5	10	10	10	10	10	10	10	5	Sleeve(2), Poly(1), Encore(3)
FSBS0012S01	Soil	2/16/2007	9:21	13	5	10	10	10	10	10	10	10	5	Sleeve(2), Poly(2), Encore(9). Run MS/MSD.See Note
FSBS0013S01	Soil	2/16/2007	9:46	5	H	H	H	EH	H	10	EH	EH	H	S(1), P(1), E(3). Hold all analysis except for pH.

Requested Analyses

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract Hold

HE 2-16-07
1850

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
E. A Sanchez	2-16-07		2/16/07				
Company: MWH	Time: 1750	Company:	Time: 17:50	Company:	Time:	Company:	Time:

Comments: Homogenize all sample sleeves of FSBS0012S01 before analysis, run method Spike/Spike Duplicate. Lab leachate for all perchlo analysis.

Geotracker EDF ☐

Data Validation Package ☑ Level IV

intact 16.0/15.5

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ANALYTICAL TESTING CORPORATION

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LABORATORY REPORT

Prepared For: MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project: SSFL Group 8 - DOE
1891264

Sampled: 02/16/07
Received: 02/16/07
Issued: 03/11/07 17:29

NELAP #01108CA California ELAP#1197 CSDLAC #10256

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain of Custody, 1 page, is included and is an integral part of this report.
This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT:	Samples were received intact, at 16°C, on ice and with chain of custody documentation.
HOLDING TIMES:	All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.
PRESERVATION:	Samples requiring preservation were verified prior to sample analysis.
QA/QC CRITERIA:	All analyses met method criteria, except as noted in the report with data qualifiers.
COMMENTS:	Results that fall between the MDL and RL are 'J' flagged.
SUBCONTRACTED:	Refer to the last page for specific subcontract laboratory information included in this report.
ADDITIONAL INFORMATION:	Enclosed are complete final results. The results for Mercury were added.

LABORATORY ID	CLIENT ID	MATRIX
IQB1815-01	FSBS0011D01	Soil
IQB1815-02	FSBS0011S01	Soil
IQB1815-03	FSBS0012S01	Soil
IQB1815-04	FSBS0013S01	Soil

Reviewed By:

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB1815

Sampled: 02/16/07
Received: 02/16/07

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: FSBS0011D01 (IQB1815-01) - Soil					
EPA 9045C	1	02/16/2007 08:36	02/16/2007 17:50	02/17/2007 09:55	02/17/2007 11:35
Sample ID: FSBS0011S01 (IQB1815-02) - Soil					
EPA 9045C	1	02/16/2007 08:36	02/16/2007 17:50	02/17/2007 09:55	02/17/2007 11:35
Sample ID: FSBS0012S01 (IQB1815-03) - Soil					
EPA 9045C	1	02/16/2007 09:21	02/16/2007 17:50	02/17/2007 09:55	02/17/2007 11:35
Sample ID: FSBS0013S01 (IQB1815-04) - Soil					
EPA 9045C	1	02/16/2007 09:46	02/16/2007 17:50	02/17/2007 09:55	02/17/2007 11:35

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Project Manager

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Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB1815

Sampled: 02/16/07
Received: 02/16/07

METHOD BLANK/QC DATA

EXTRACTABLE FUEL HYDROCARBONS (CADHS/8015 Modified)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B20072 Extracted: 02/20/07											
Blank Analyzed: 02/20/2007 (7B20072-BLK1)											
EFH (C8 - C30)	ND	5.0	3.5	mg/kg wet							
EFH (C8 - C11)	ND	5.0	3.5	mg/kg wet							
EFH (C12 - C14)	ND	5.0	3.5	mg/kg wet							
EFH (C15 - C20)	ND	5.0	3.5	mg/kg wet							
EFH (C21 - C30)	ND	5.0	3.5	mg/kg wet							
Surrogate: n-Octacosane	*4.22*			*mg/kg wet*	*6.67*		*63*	*40-125*			
LCS Analyzed: 02/20/2007 (7B20072-BS1)											
EFH (C8 - C30)	26.3	5.0	3.5	mg/kg wet	33.3		79	40-115			
Surrogate: n-Octacosane	*4.37*			*mg/kg wet*	*6.67*		*66*	*40-125*			
Matrix Spike Analyzed: 02/20/2007 (7B20072-MS1)						**Source: IQB1815-03**					
EFH (C8 - C30)	31.5	5.6	4.0	mg/kg dry	37.7	ND	84	40-120			
Surrogate: n-Octacosane	*5.23*			*mg/kg dry*	*7.53*		*69*	*40-125*			
Matrix Spike Dup Analyzed: 02/20/2007 (7B20072-MSD1)						**Source: IQB1815-03**					
EFH (C8 - C30)	30.8	5.6	4.0	mg/kg dry	37.7	ND	82	40-120	2	30	
Surrogate: n-Octacosane	*5.26*			*mg/kg dry*	*7.53*		*70*	*40-125*			

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Michele Chamberlin
Project Manager

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Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQB1815

Sampled: 02/16/07
Received: 02/16/07

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B19031 Extracted: 02/19/07											
Blank Analyzed: 02/19/2007 (7B19031-BLK1)											
Acetone	ND	10	8.0	ug/kg wet							
Benzene	ND	2.0	0.50	ug/kg wet							
Bromobenzene	ND	5.0	0.84	ug/kg wet							
Bromochloromethane	ND	5.0	0.90	ug/kg wet							
Bromodichloromethane	ND	2.0	0.42	ug/kg wet							
Bromoform	ND	5.0	0.80	ug/kg wet							
Bromomethane	ND	5.0	0.92	ug/kg wet							
2-Butanone (MEK)	ND	10	6.0	ug/kg wet							
n-Butylbenzene	ND	5.0	0.72	ug/kg wet							
sec-Butylbenzene	ND	5.0	0.67	ug/kg wet							
tert-Butylbenzene	ND	5.0	0.62	ug/kg wet							
Carbon tetrachloride	ND	5.0	0.50	ug/kg wet							
Chlorobenzene	ND	2.0	0.52	ug/kg wet							
Chloroethane	ND	5.0	1.5	ug/kg wet							
2-Chloroethyl vinyl ether	ND	5.0	3.8	ug/kg wet							
Chloroform	ND	2.0	0.50	ug/kg wet							
Chloromethane	ND	5.0	1.0	ug/kg wet							
2-Chlorotoluene	ND	5.0	0.87	ug/kg wet							
4-Chlorotoluene	ND	5.0	0.74	ug/kg wet							
Dibromochloromethane	ND	2.0	0.56	ug/kg wet							
1,2-Dibromo-3-chloropropane	ND	5.0	1.5	ug/kg wet							
1,2-Dibromoethane (EDB)	ND	2.0	0.80	ug/kg wet							
Dibromomethane	ND	2.0	0.90	ug/kg wet							
1,2-Dichlorobenzene	ND	2.0	0.95	ug/kg wet							
1,3-Dichlorobenzene	ND	2.0	0.84	ug/kg wet							
1,4-Dichlorobenzene	ND	2.0	0.94	ug/kg wet							
Dichlorodifluoromethane	ND	5.0	1.5	ug/kg wet							
1,1-Dichloroethane	ND	2.0	0.50	ug/kg wet							
1,2-Dichloroethane	ND	2.0	0.80	ug/kg wet							
1,1-Dichloroethene	ND	5.0	0.60	ug/kg wet							
cis-1,2-Dichloroethene	ND	2.0	0.83	ug/kg wet							
trans-1,2-Dichloroethene	ND	2.0	0.70	ug/kg wet							
1,2-Dichloropropane	ND	2.0	0.35	ug/kg wet							
1,3-Dichloropropane	ND	2.0	0.63	ug/kg wet							
2,2-Dichloropropane	ND	2.0	0.45	ug/kg wet							

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Michele Chamberlin
Project Manager

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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQB1815

Sampled: 02/16/07
Received: 02/16/07

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B19031 Extracted: 02/19/07											
Blank Analyzed: 02/19/2007 (7B19031-BLK1)											
1,1-Dichloropropene	ND	2.0	0.40	ug/kg wet							
cis-1,3-Dichloropropene	ND	2.0	0.44	ug/kg wet							
trans-1,3-Dichloropropene	ND	2.0	0.61	ug/kg wet							
Ethylbenzene	ND	2.0	0.50	ug/kg wet							
Hexachlorobutadiene	ND	5.0	0.73	ug/kg wet							
2-Hexanone	ND	10	9.1	ug/kg wet							
Isopropylbenzene	ND	2.0	0.54	ug/kg wet							
p-Isopropyltoluene	ND	2.0	0.72	ug/kg wet							
Methylene chloride	ND	20	6.5	ug/kg wet							
4-Methyl-2-pentanone (MIBK)	ND	5.0	3.2	ug/kg wet							
Methyl-tert-butyl Ether (MTBE)	ND	5.0	1.0	ug/kg wet							
Naphthalene	ND	5.0	1.1	ug/kg wet							
n-Propylbenzene	ND	2.0	0.61	ug/kg wet							
Styrene	ND	2.0	0.58	ug/kg wet							
1,1,1,2-Tetrachloroethane	ND	5.0	0.57	ug/kg wet							
1,1,2,2-Tetrachloroethane	ND	2.0	0.86	ug/kg wet							
Tetrachloroethene	ND	2.0	0.49	ug/kg wet							
Toluene	ND	2.0	0.50	ug/kg wet							
1,2,3-Trichlorobenzene	ND	5.0	1.0	ug/kg wet							
1,2,4-Trichlorobenzene	ND	5.0	1.0	ug/kg wet							
1,1,1-Trichloroethane	ND	2.0	0.70	ug/kg wet							
1,1,2-Trichloroethane	ND	2.0	0.87	ug/kg wet							
Trichloroethene	ND	2.0	0.50	ug/kg wet							
Trichlorofluoromethane	ND	5.0	0.54	ug/kg wet							
1,2,3-Trichloropropane	ND	10	1.0	ug/kg wet							
1,2,4-Trimethylbenzene	ND	2.0	0.78	ug/kg wet							
1,3,5-Trimethylbenzene	ND	2.0	0.63	ug/kg wet							
Vinyl chloride	ND	2.0	0.91	ug/kg wet							
o-Xylene	ND	2.0	0.50	ug/kg wet							
m,p-Xylenes	ND	2.0	0.80	ug/kg wet							
Trichlorotrifluoroethane (Freon 113)	ND	5.0	4.0	ug/kg wet							
Surrogate: Dibromofluoromethane	*47.0*			*ug/kg wet*	*50.0*		*94*	*80-125*			
Surrogate: Toluene-d8	*49.9*			*ug/kg wet*	*50.0*		*100*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*50.1*			*ug/kg wet*	*50.0*		*100*	*80-120*			

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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TestAmerica
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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQB1815

Sampled: 02/16/07
Received: 02/16/07

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B19031 Extracted: 02/19/07											
LCS Analyzed: 02/19/2007 (7B19031-BS1)											
Acetone	63.6	10	8.0	ug/kg wet	50.0		127	25-145			*M-3*
Benzene	41.3	2.0	0.50	ug/kg wet	50.0		83	65-120			
Bromobenzene	42.7	5.0	0.84	ug/kg wet	50.0		85	75-120			
Bromochloromethane	40.8	5.0	0.90	ug/kg wet	50.0		82	70-135			
Bromodichloromethane	42.7	2.0	0.42	ug/kg wet	50.0		85	70-135			
Bromoform	37.0	5.0	0.80	ug/kg wet	50.0		74	55-135			
Bromomethane	38.3	5.0	0.92	ug/kg wet	50.0		77	60-145			
2-Butanone (MEK)	48.6	10	6.0	ug/kg wet	50.0		97	40-145			
n-Butylbenzene	45.8	5.0	0.72	ug/kg wet	50.0		92	70-130			
sec-Butylbenzene	44.9	5.0	0.67	ug/kg wet	50.0		90	70-125			
tert-Butylbenzene	44.4	5.0	0.62	ug/kg wet	50.0		89	70-125			
Carbon tetrachloride	41.4	5.0	0.50	ug/kg wet	50.0		83	65-140			
Chlorobenzene	42.8	2.0	0.52	ug/kg wet	50.0		86	75-120			
Chloroethane	32.7	5.0	1.5	ug/kg wet	50.0		65	60-140			
2-Chloroethyl vinyl ether	35.7	5.0	3.8	ug/kg wet	50.0		71	25-170			
Chloroform	39.2	2.0	0.50	ug/kg wet	50.0		78	70-130			
Chloromethane	48.4	5.0	1.0	ug/kg wet	50.0		97	45-145			
2-Chlorotoluene	43.8	5.0	0.87	ug/kg wet	50.0		88	70-125			
4-Chlorotoluene	44.0	5.0	0.74	ug/kg wet	50.0		88	75-125			
Dibromochloromethane	44.7	2.0	0.56	ug/kg wet	50.0		89	65-140			
1,2-Dibromo-3-chloropropane	40.6	5.0	1.5	ug/kg wet	50.0		81	50-135			
1,2-Dibromoethane (EDB)	43.5	2.0	0.80	ug/kg wet	50.0		87	70-130			
Dibromomethane	44.5	2.0	0.90	ug/kg wet	50.0		89	70-130			
1,2-Dichlorobenzene	43.8	2.0	0.95	ug/kg wet	50.0		88	75-120			
1,3-Dichlorobenzene	44.0	2.0	0.84	ug/kg wet	50.0		88	75-125			
1,4-Dichlorobenzene	43.3	2.0	0.94	ug/kg wet	50.0		87	75-120			
Dichlorodifluoromethane	44.0	5.0	1.5	ug/kg wet	50.0		88	35-160			
1,1-Dichloroethane	38.9	2.0	0.50	ug/kg wet	50.0		78	70-130			
1,2-Dichloroethane	44.1	2.0	0.80	ug/kg wet	50.0		88	60-140			
1,1-Dichloroethene	38.1	5.0	0.60	ug/kg wet	50.0		76	70-125			
cis-1,2-Dichloroethene	39.7	2.0	0.83	ug/kg wet	50.0		79	70-125			
trans-1,2-Dichloroethene	39.7	2.0	0.70	ug/kg wet	50.0		79	70-125			
1,2-Dichloropropane	42.7	2.0	0.35	ug/kg wet	50.0		85	70-130			
1,3-Dichloropropane	44.7	2.0	0.63	ug/kg wet	50.0		89	70-125			
2,2-Dichloropropane	42.7	2.0	0.45	ug/kg wet	50.0		85	60-145			

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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
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Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQB1815

Sampled: 02/16/07
Received: 02/16/07

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B19031 Extracted: 02/19/07											
LCS Analyzed: 02/19/2007 (7B19031-BS1)											
1,1-Dichloropropene	43.5	2.0	0.40	ug/kg wet	50.0		87	70-130			
cis-1,3-Dichloropropene	39.7	2.0	0.44	ug/kg wet	50.0		79	75-125			
trans-1,3-Dichloropropene	40.6	2.0	0.61	ug/kg wet	50.0		81	70-135			
Ethylbenzene	45.1	2.0	0.50	ug/kg wet	50.0		90	70-125			
Hexachlorobutadiene	43.7	5.0	0.73	ug/kg wet	50.0		87	60-135			
2-Hexanone	49.2	10	9.1	ug/kg wet	50.0		98	40-150			
Isopropylbenzene	50.4	2.0	0.54	ug/kg wet	50.0		101	75-130			
p-Isopropyltoluene	46.2	2.0	0.72	ug/kg wet	50.0		92	75-125			
Methylene chloride	33.3	20	6.5	ug/kg wet	50.0		67	55-135			
4-Methyl-2-pentanone (MIBK)	43.1	5.0	3.2	ug/kg wet	50.0		86	40-145			
Methyl-tert-butyl Ether (MTBE)	40.2	5.0	1.0	ug/kg wet	50.0		80	60-140			
Naphthalene	44.2	5.0	1.1	ug/kg wet	50.0		88	55-135			
n-Propylbenzene	46.0	2.0	0.61	ug/kg wet	50.0		92	70-130			
Styrene	45.0	2.0	0.58	ug/kg wet	50.0		90	75-130			
1,1,1,2-Tetrachloroethane	44.0	5.0	0.57	ug/kg wet	50.0		88	70-130			
1,1,2,2-Tetrachloroethane	46.3	2.0	0.86	ug/kg wet	50.0		93	55-140			
Tetrachloroethene	40.7	2.0	0.49	ug/kg wet	50.0		81	70-125			
Toluene	43.4	2.0	0.50	ug/kg wet	50.0		87	70-125			
1,2,3-Trichlorobenzene	43.3	5.0	1.0	ug/kg wet	50.0		87	60-130			
1,2,4-Trichlorobenzene	44.4	5.0	1.0	ug/kg wet	50.0		89	70-135			
1,1,1-Trichloroethane	39.2	2.0	0.70	ug/kg wet	50.0		78	65-135			
1,1,2-Trichloroethane	43.4	2.0	0.87	ug/kg wet	50.0		87	65-135			
Trichloroethene	43.2	2.0	0.50	ug/kg wet	50.0		86	70-125			
Trichlorofluoromethane	39.1	5.0	0.54	ug/kg wet	50.0		78	60-145			
1,2,3-Trichloropropane	41.2	10	1.0	ug/kg wet	50.0		82	60-135			
1,2,4-Trimethylbenzene	44.6	2.0	0.78	ug/kg wet	50.0		89	70-125			
1,3,5-Trimethylbenzene	45.9	2.0	0.63	ug/kg wet	50.0		92	70-125			
Vinyl chloride	43.7	2.0	0.91	ug/kg wet	50.0		87	55-135			
o-Xylene	44.6	2.0	0.50	ug/kg wet	50.0		89	70-125			
m,p-Xylenes	91.7	2.0	0.80	ug/kg wet	100		92	70-125			
Surrogate: Dibromofluoromethane	*47.8*			*ug/kg wet*	*50.0*		*96*	*80-125*			
Surrogate: Toluene-d8	*50.7*			*ug/kg wet*	*50.0*		*101*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*53.1*			*ug/kg wet*	*50.0*		*106*	*80-120*			

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Project Manager

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MWH-San Diego/Boeing
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Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB1815

Sampled: 02/16/07
Received: 02/16/07

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B19031 Extracted: 02/19/07											
Matrix Spike Analyzed: 02/19/2007 (7B19031-MS1)						**Source: IQB1737-17**					
Benzene	37.8	2.0	0.50	ug/kg wet	49.5	ND	76	65-130			
Bromobenzene	53.1	5.0	0.83	ug/kg wet	49.5	ND	107	65-140			
Bromochloromethane	46.6	5.0	0.89	ug/kg wet	49.5	ND	94	65-145			
Bromodichloromethane	45.6	2.0	0.42	ug/kg wet	49.5	ND	92	65-145			
Bromoform	36.7	5.0	0.79	ug/kg wet	49.5	ND	74	50-145			
Bromomethane	49.1	5.0	0.91	ug/kg wet	49.5	ND	99	60-155			
2-Butanone (MEK)	78.1	9.9	5.9	ug/kg wet	49.5	ND	158	25-170			
n-Butylbenzene	104	5.0	0.71	ug/kg wet	49.5	49	111	55-145			
sec-Butylbenzene	78.0	5.0	0.66	ug/kg wet	49.5	26	105	60-135			
tert-Butylbenzene	49.7	5.0	0.61	ug/kg wet	49.5	1.6	97	60-140			
Carbon tetrachloride	32.6	5.0	0.50	ug/kg wet	49.5	ND	66	60-145			
Chlorobenzene	55.8	2.0	0.51	ug/kg wet	49.5	ND	113	70-130			
Chloroethane	45.2	5.0	1.5	ug/kg wet	49.5	ND	91	60-150			
2-Chloroethyl vinyl ether	48.3	5.0	3.8	ug/kg wet	49.5	ND	98	25-170			
Chloroform	43.2	2.0	0.50	ug/kg wet	49.5	ND	87	65-135			
Chloromethane	45.6	5.0	0.99	ug/kg wet	49.5	ND	92	40-145			
2-Chlorotoluene	52.9	5.0	0.86	ug/kg wet	49.5	ND	107	60-135			
4-Chlorotoluene	53.3	5.0	0.73	ug/kg wet	49.5	ND	108	65-135			
Dibromochloromethane	44.9	2.0	0.55	ug/kg wet	49.5	ND	91	60-145			
1,2-Dibromo-3-chloropropane	39.3	5.0	1.5	ug/kg wet	49.5	ND	79	40-150			
1,2-Dibromoethane (EDB)	49.5	2.0	0.79	ug/kg wet	49.5	ND	100	65-140			
Dibromomethane	46.0	2.0	0.89	ug/kg wet	49.5	ND	93	65-140			
1,2-Dichlorobenzene	45.9	2.0	0.94	ug/kg wet	49.5	ND	93	70-130			
1,3-Dichlorobenzene	49.1	2.0	0.83	ug/kg wet	49.5	ND	99	70-130			
1,4-Dichlorobenzene	49.1	2.0	0.93	ug/kg wet	49.5	ND	99	70-130			
Dichlorodifluoromethane	43.3	5.0	1.5	ug/kg wet	49.5	ND	87	30-160			
1,1-Dichloroethane	43.7	2.0	0.50	ug/kg wet	49.5	ND	88	65-135			
1,2-Dichloroethane	44.1	2.0	0.79	ug/kg wet	49.5	ND	89	60-150			
1,1-Dichloroethene	47.4	5.0	0.59	ug/kg wet	49.5	ND	96	65-135			
cis-1,2-Dichloroethene	43.9	2.0	0.82	ug/kg wet	49.5	ND	89	65-135			
trans-1,2-Dichloroethene	38.5	2.0	0.69	ug/kg wet	49.5	ND	78	70-135			
1,2-Dichloropropane	54.7	2.0	0.35	ug/kg wet	49.5	ND	111	65-130			
1,3-Dichloropropane	46.4	2.0	0.62	ug/kg wet	49.5	ND	94	65-140			
2,2-Dichloropropane	34.8	2.0	0.45	ug/kg wet	49.5	ND	70	65-150			
1,1-Dichloropropene	48.1	2.0	0.40	ug/kg wet	49.5	ND	97	65-135			

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Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB1815

Sampled: 02/16/07
Received: 02/16/07

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B19031 Extracted: 02/19/07											
Matrix Spike Analyzed: 02/19/2007 (7B19031-MS1)						**Source: IQB1737-17**					
cis-1,3-Dichloropropene	40.0	2.0	0.44	ug/kg wet	49.5	ND	81	70-135			
trans-1,3-Dichloropropene	41.3	2.0	0.60	ug/kg wet	49.5	ND	83	60-145			
Ethylbenzene	73.8	2.0	0.50	ug/kg wet	49.5	13	123	70-135			
Hexachlorobutadiene	24.1	5.0	0.72	ug/kg wet	49.5	ND	49	50-145			*M2*
2-Hexanone	26.8	9.9	9.0	ug/kg wet	49.5	ND	54	35-160			
Isopropylbenzene	121	2.0	0.53	ug/kg wet	49.5	42	160	70-145			*M1*
p-Isopropyltoluene	64.3	2.0	0.71	ug/kg wet	49.5	14	102	60-140			
Methylene chloride	40.0	20	6.4	ug/kg wet	49.5	ND	81	55-145			
4-Methyl-2-pentanone (MIBK)	124	5.0	3.2	ug/kg wet	49.5	ND	251	40-155			*M1*
Methyl-tert-butyl Ether (MTBE)	44.5	5.0	0.99	ug/kg wet	49.5	ND	90	55-155			
Naphthalene	108	5.0	1.1	ug/kg wet	49.5	55	107	40-150			
n-Propylbenzene	178	2.0	0.60	ug/kg wet	49.5	84	190	65-140			*M1*
Styrene	53.3	2.0	0.57	ug/kg wet	49.5	ND	108	70-140			
1,1,1,2-Tetrachloroethane	49.3	5.0	0.56	ug/kg wet	49.5	ND	100	65-145			
1,1,2,2-Tetrachloroethane	49.8	2.0	0.85	ug/kg wet	49.5	ND	101	40-160			
Tetrachloroethene	45.8	2.0	0.49	ug/kg wet	49.5	ND	93	65-135			
Toluene	51.3	2.0	0.50	ug/kg wet	49.5	2.4	99	70-130			
1,2,3-Trichlorobenzene	35.5	5.0	0.99	ug/kg wet	49.5	ND	72	45-145			
1,2,4-Trichlorobenzene	37.5	5.0	0.99	ug/kg wet	49.5	ND	76	50-140			
1,1,1-Trichloroethane	35.0	2.0	0.69	ug/kg wet	49.5	ND	71	65-145			
1,1,2-Trichloroethane	62.8	2.0	0.86	ug/kg wet	49.5	ND	127	65-140			
Trichloroethene	47.8	2.0	0.50	ug/kg wet	49.5	ND	97	65-140			
Trichlorofluoromethane	39.2	5.0	0.53	ug/kg wet	49.5	ND	79	55-155			
1,2,3-Trichloropropane	41.8	9.9	0.99	ug/kg wet	49.5	ND	84	50-150			
1,2,4-Trimethylbenzene	57.9	2.0	0.77	ug/kg wet	49.5	5.4	106	65-140			
1,3,5-Trimethylbenzene	65.9	2.0	0.62	ug/kg wet	49.5	10	113	65-135			
Vinyl chloride	48.8	2.0	0.90	ug/kg wet	49.5	ND	99	55-140			
o-Xylene	60.6	2.0	0.50	ug/kg wet	49.5	5.7	111	65-130			
m,p-Xylenes	120	2.0	0.79	ug/kg wet	99.0	8.9	112	70-130			
Surrogate: Dibromofluoromethane	*46.0*			*ug/kg wet*	*49.5*		*93*	*80-125*			
Surrogate: Toluene-d8	*50.6*			*ug/kg wet*	*49.5*		*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*46.9*			*ug/kg wet*	*49.5*		*95*	*80-120*			

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Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB1815

Sampled: 02/16/07
Received: 02/16/07

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B19031 Extracted: 02/19/07											
Matrix Spike Dup Analyzed: 02/19/2007 (7B19031-MSD1)						**Source: IQB1737-17**					
Benzene	37.2	2.0	0.50	ug/kg wet	49.6	ND	75	65-130	2	20	
Bromobenzene	51.2	5.0	0.83	ug/kg wet	49.6	ND	103	65-140	4	25	
Bromochloromethane	45.5	5.0	0.89	ug/kg wet	49.6	ND	92	65-145	2	25	
Bromodichloromethane	44.5	2.0	0.42	ug/kg wet	49.6	ND	90	65-145	2	20	
Bromoform	38.0	5.0	0.79	ug/kg wet	49.6	ND	77	50-145	3	30	
Bromomethane	42.9	5.0	0.91	ug/kg wet	49.6	ND	86	60-155	13	25	
2-Butanone (MEK)	82.7	9.9	6.0	ug/kg wet	49.6	ND	167	25-170	6	40	
n-Butylbenzene	98.9	5.0	0.71	ug/kg wet	49.6	49	101	55-145	5	30	
sec-Butylbenzene	73.4	5.0	0.66	ug/kg wet	49.6	26	96	60-135	6	25	
tert-Butylbenzene	46.6	5.0	0.62	ug/kg wet	49.6	1.6	91	60-140	6	25	
Carbon tetrachloride	31.1	5.0	0.50	ug/kg wet	49.6	ND	63	60-145	5	25	
Chlorobenzene	54.7	2.0	0.52	ug/kg wet	49.6	ND	110	70-130	2	25	
Chloroethane	40.2	5.0	1.5	ug/kg wet	49.6	ND	81	60-150	12	25	
2-Chloroethyl vinyl ether	48.7	5.0	3.8	ug/kg wet	49.6	ND	98	25-170	1	30	
Chloroform	42.1	2.0	0.50	ug/kg wet	49.6	ND	85	65-135	3	20	
Chloromethane	44.8	5.0	0.99	ug/kg wet	49.6	ND	90	40-145	2	25	
2-Chlorotoluene	51.1	5.0	0.86	ug/kg wet	49.6	ND	103	60-135	3	25	
4-Chlorotoluene	51.5	5.0	0.73	ug/kg wet	49.6	ND	104	65-135	3	25	
Dibromochloromethane	45.0	2.0	0.56	ug/kg wet	49.6	ND	91	60-145	0	25	
1,2-Dibromo-3-chloropropane	40.5	5.0	1.5	ug/kg wet	49.6	ND	82	40-150	3	30	
1,2-Dibromoethane (EDB)	49.7	2.0	0.79	ug/kg wet	49.6	ND	100	65-140	0	25	
Dibromomethane	45.7	2.0	0.89	ug/kg wet	49.6	ND	92	65-140	1	25	
1,2-Dichlorobenzene	44.7	2.0	0.94	ug/kg wet	49.6	ND	90	70-130	3	25	
1,3-Dichlorobenzene	47.5	2.0	0.83	ug/kg wet	49.6	ND	96	70-130	3	25	
1,4-Dichlorobenzene	47.5	2.0	0.93	ug/kg wet	49.6	ND	96	70-130	3	25	
Dichlorodifluoromethane	40.7	5.0	1.5	ug/kg wet	49.6	ND	82	30-160	6	35	
1,1-Dichloroethane	44.2	2.0	0.50	ug/kg wet	49.6	ND	89	65-135	1	25	
1,2-Dichloroethane	43.2	2.0	0.79	ug/kg wet	49.6	ND	87	60-150	2	25	
1,1-Dichloroethene	46.9	5.0	0.60	ug/kg wet	49.6	ND	95	65-135	1	25	
cis-1,2-Dichloroethene	42.9	2.0	0.82	ug/kg wet	49.6	ND	86	65-135	2	25	
trans-1,2-Dichloroethene	38.1	2.0	0.69	ug/kg wet	49.6	ND	77	70-135	1	25	
1,2-Dichloropropane	53.9	2.0	0.35	ug/kg wet	49.6	ND	109	65-130	1	20	
1,3-Dichloropropane	45.5	2.0	0.62	ug/kg wet	49.6	ND	92	65-140	2	25	
2,2-Dichloropropane	32.6	2.0	0.45	ug/kg wet	49.6	ND	66	65-150	7	25	
1,1-Dichloropropene	46.8	2.0	0.40	ug/kg wet	49.6	ND	94	65-135	3	20	

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Michele Chamberlin
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MWH-San Diego/Boeing
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San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQB1815

Sampled: 02/16/07
Received: 02/16/07

METHOD BLANK/QC DATA

VOLATILE ORGANICS by GC/MS (EPA 5035/8260B)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B19031 Extracted: 02/19/07											
Matrix Spike Dup Analyzed: 02/19/2007 (7B19031-MSD1)						**Source: IQB1737-17**					
cis-1,3-Dichloropropene	38.9	2.0	0.44	ug/kg wet	49.6	ND	78	70-135	3	25	
trans-1,3-Dichloropropene	40.0	2.0	0.61	ug/kg wet	49.6	ND	81	60-145	3	25	
Ethylbenzene	75.6	2.0	0.50	ug/kg wet	49.6	13	126	70-135	2	25	
Hexachlorobutadiene	19.3	5.0	0.72	ug/kg wet	49.6	ND	39	50-145	22	35	*M2*
2-Hexanone	29.3	9.9	9.0	ug/kg wet	49.6	ND	59	35-160	9	40	
Isopropylbenzene	118	2.0	0.54	ug/kg wet	49.6	42	153	70-145	3	25	*M1*
p-Isopropyltoluene	60.5	2.0	0.71	ug/kg wet	49.6	14	94	60-140	6	25	
Methylene chloride	37.2	20	6.4	ug/kg wet	49.6	ND	75	55-145	7	25	
4-Methyl-2-pentanone (MIBK)	118	5.0	3.2	ug/kg wet	49.6	ND	238	40-155	5	40	*M1*
Methyl-tert-butyl Ether (MTBE)	44.2	5.0	0.99	ug/kg wet	49.6	ND	89	55-155	1	35	
Naphthalene	114	5.0	1.1	ug/kg wet	49.6	55	119	40-150	5	40	
n-Propylbenzene	172	2.0	0.61	ug/kg wet	49.6	84	177	65-140	3	25	*M1*
Styrene	52.3	2.0	0.58	ug/kg wet	49.6	ND	105	70-140	2	25	
1,1,1,2-Tetrachloroethane	48.1	5.0	0.57	ug/kg wet	49.6	ND	97	65-145	2	20	
1,1,2,2-Tetrachloroethane	50.3	2.0	0.85	ug/kg wet	49.6	ND	101	40-160	1	30	
Tetrachloroethene	45.1	2.0	0.49	ug/kg wet	49.6	ND	91	65-135	2	25	
Toluene	52.0	2.0	0.50	ug/kg wet	49.6	2.4	100	70-130	1	20	
1,2,3-Trichlorobenzene	36.5	5.0	0.99	ug/kg wet	49.6	ND	74	45-145	3	30	
1,2,4-Trichlorobenzene	37.6	5.0	0.99	ug/kg wet	49.6	ND	76	50-140	0	30	
1,1,1-Trichloroethane	32.7	2.0	0.69	ug/kg wet	49.6	ND	66	65-145	7	20	
1,1,2-Trichloroethane	62.9	2.0	0.86	ug/kg wet	49.6	ND	127	65-140	0	30	
Trichloroethene	47.0	2.0	0.50	ug/kg wet	49.6	ND	95	65-140	2	25	
Trichlorofluoromethane	39.5	5.0	0.54	ug/kg wet	49.6	ND	80	55-155	1	25	
1,2,3-Trichloropropane	43.4	9.9	0.99	ug/kg wet	49.6	ND	88	50-150	4	30	
1,2,4-Trimethylbenzene	55.5	2.0	0.77	ug/kg wet	49.6	5.4	101	65-140	4	25	
1,3,5-Trimethylbenzene	63.3	2.0	0.62	ug/kg wet	49.6	10	107	65-135	4	25	
Vinyl chloride	45.4	2.0	0.90	ug/kg wet	49.6	ND	92	55-140	7	30	
o-Xylene	60.7	2.0	0.50	ug/kg wet	49.6	5.7	111	65-130	0	25	
m,p-Xylenes	120	2.0	0.79	ug/kg wet	99.2	8.9	112	70-130	0	25	
Surrogate: Dibromofluoromethane	*44.9*			*ug/kg wet*	*49.6*		*91*	*80-125*			
Surrogate: Toluene-d8	*50.5*			*ug/kg wet*	*49.6*		*102*	*80-120*			
Surrogate: 4-Bromofluorobenzene	*46.9*			*ug/kg wet*	*49.6*		*95*	*80-120*			

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Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQB1815

Sampled: 02/16/07
Received: 02/16/07

METHOD BLANK/QC DATA

PURGEABLES BY GC/MS, TENTATIVELY IDENTIFIED COMPOUNDS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B19031 Extracted: 02/19/07											
Blank Analyzed: 02/19/2007 (7B19031-BLK1)											
2-Chloro-1,1,1-trifluoroethane	ND	10	N/A	ug/kg wet							
Chlorotrifluoroethene	ND	10	N/A	ug/kg wet							

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METHOD BLANK/QC DATA

POLYCHLORINATED BIPHENYLS (EPA 3545/8082)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B23106 Extracted: 02/23/07											
Blank Analyzed: 02/23/2007 (7B23106-BLK1)											
Aroclor 1016	ND	50	15	ug/kg wet							
Aroclor 1221	ND	50	15	ug/kg wet							
Aroclor 1232	ND	50	10	ug/kg wet							
Aroclor 1242	ND	50	10	ug/kg wet							
Aroclor 1248	ND	50	10	ug/kg wet							
Aroclor 1254	ND	50	10	ug/kg wet							
Aroclor 1260	ND	50	10	ug/kg wet							
Surrogate: Decachlorobiphenyl	*31.2*			*ug/kg wet*	*33.3*		*94*	*45-120*			
LCS Analyzed: 02/23/2007 (7B23106-BS2)											
Aroclor 1016	269	50	15	ug/kg wet	267		101	60-115			
Aroclor 1260	287	50	10	ug/kg wet	267		107	60-115			
Surrogate: Decachlorobiphenyl	*36.4*			*ug/kg wet*	*33.3*		*109*	*45-120*			
Matrix Spike Analyzed: 02/24/2007 (7B23106-MS2)						**Source: IQB1815-03**					
Aroclor 1016	317	56	17	ug/kg dry	301	ND	105	45-120			
Aroclor 1260	330	56	11	ug/kg dry	301	ND	110	45-120			
Surrogate: Decachlorobiphenyl	*42.6*			*ug/kg dry*	*37.7*		*113*	*45-120*			
Matrix Spike Dup Analyzed: 02/24/2007 (7B23106-MSD2)						**Source: IQB1815-03**					
Aroclor 1016	292	56	17	ug/kg dry	301	ND	97	45-120	8	30	
Aroclor 1260	317	56	11	ug/kg dry	301	ND	105	45-120	4	30	
Surrogate: Decachlorobiphenyl	*40.0*			*ug/kg dry*	*37.6*		*106*	*45-120*			
Batch: 7B26083 Extracted: 02/26/07											
Blank Analyzed: 02/26/2007 (7B26083-BLK1)											
Aroclor 1016	ND	50	15	ug/kg wet							
Aroclor 1221	ND	50	15	ug/kg wet							
Aroclor 1232	ND	50	10	ug/kg wet							
Aroclor 1242	ND	50	10	ug/kg wet							
Aroclor 1248	ND	50	10	ug/kg wet							
Aroclor 1254	ND	50	10	ug/kg wet							
Aroclor 1260	ND	50	10	ug/kg wet							
Surrogate: Decachlorobiphenyl	*32.2*			*ug/kg wet*	*33.3*		*97*	*45-120*			

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METHOD BLANK/QC DATA

POLYCHLORINATED BIPHENYLS (EPA 3545/8082)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B26083 Extracted: 02/26/07											
LCS Analyzed: 02/26/2007 (7B26083-BS2)											
Aroclor 1016	265	50	15	ug/kg wet	267		99	60-115			
Aroclor 1260	271	50	10	ug/kg wet	267		101	60-115			
Surrogate: Decachlorobiphenyl	*35.0*			*ug/kg wet*	*33.3*		*105*	*45-120*			
Matrix Spike Analyzed: 02/27/2007 (7B26083-MS2)						**Source: IQB1140-15RE2**					
Aroclor 1016	463	50	15	ug/kg wet	266	ND	174	45-120			*M1*
Aroclor 1260	282	50	10	ug/kg wet	266	ND	106	45-120			
Surrogate: Decachlorobiphenyl	*19.5*			*ug/kg wet*	*33.2*		*59*	*45-120*			
Matrix Spike Dup Analyzed: 02/27/2007 (7B26083-MSD2)						**Source: IQB1140-15RE2**					
Aroclor 1016	440	50	15	ug/kg wet	267	ND	165	45-120	5	30	*M1*
Aroclor 1260	244	50	10	ug/kg wet	267	ND	91	45-120	14	30	
Surrogate: Decachlorobiphenyl	*17.2*			*ug/kg wet*	*33.3*		*52*	*45-120*			

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B22114 Extracted: 02/22/07											
Blank Analyzed: 02/22/2007 (7B22114-BLK1)											
Antimony	ND	1.0	0.030	mg/kg wet							
Arsenic	ND	0.50	0.25	mg/kg wet							
Barium	ND	0.50	0.080	mg/kg wet							
Beryllium	ND	0.30	0.040	mg/kg wet							
Cadmium	ND	0.50	0.025	mg/kg wet							
Chromium	ND	1.0	0.35	mg/kg wet							
Cobalt	ND	0.50	0.080	mg/kg wet							
Copper	ND	1.0	0.20	mg/kg wet							
Lead	ND	0.50	0.050	mg/kg wet							
Molybdenum	ND	1.0	0.10	mg/kg wet							
Nickel	ND	1.0	0.45	mg/kg wet							
Selenium	ND	1.0	0.20	mg/kg wet							
Silver	ND	0.50	0.050	mg/kg wet							
Thallium	ND	0.50	0.10	mg/kg wet							
Vanadium	ND	1.0	0.40	mg/kg wet							
Zinc	ND	10	1.3	mg/kg wet							
LCS Analyzed: 02/22/2007 (7B22114-BS1)											
Antimony	42.6	1.0	0.030	mg/kg wet	50.0		85	80-120			
Arsenic	42.2	0.50	0.25	mg/kg wet	50.0		84	80-120			
Barium	43.1	0.50	0.080	mg/kg wet	50.0		86	80-120			
Beryllium	44.9	0.30	0.040	mg/kg wet	50.0		90	80-120			
Cadmium	43.1	0.50	0.025	mg/kg wet	50.0		86	80-120			
Chromium	43.4	1.0	0.35	mg/kg wet	50.0		87	80-120			
Cobalt	43.6	0.50	0.080	mg/kg wet	50.0		87	80-120			
Copper	45.0	1.0	0.20	mg/kg wet	50.0		90	80-120			
Lead	42.3	0.50	0.050	mg/kg wet	50.0		85	80-120			
Molybdenum	42.3	1.0	0.10	mg/kg wet	50.0		85	80-120			
Nickel	43.6	1.0	0.45	mg/kg wet	50.0		87	80-120			
Selenium	41.0	1.0	0.20	mg/kg wet	50.0		82	80-120			
Silver	22.4	0.50	0.050	mg/kg wet	25.0		90	80-120			
Thallium	42.9	0.50	0.10	mg/kg wet	50.0		86	80-120			
Vanadium	42.6	1.0	0.40	mg/kg wet	50.0		85	80-120			
Zinc	43.7	10	1.3	mg/kg wet	50.0		87	80-120			

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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B22114 Extracted: 02/22/07											
Matrix Spike Analyzed: 02/22/2007 (7B22114-MS1)						**Source: IQB2309-02**					
Antimony	12.5	1.1	0.032	mg/kg dry	53.6	0.086	23	75-125			*M2*
Arsenic	40.4	0.54	0.27	mg/kg dry	53.6	1.9	72	75-125			*M2*
Barium	113	0.54	0.086	mg/kg dry	53.6	83	56	75-125			*M2*
Beryllium	41.3	0.32	0.043	mg/kg dry	53.6	0.53	76	75-125			
Cadmium	39.0	0.54	0.027	mg/kg dry	53.6	0.12	73	75-125			*M2*
Chromium	54.8	1.1	0.38	mg/kg dry	53.6	14	76	75-125			
Cobalt	45.3	0.54	0.086	mg/kg dry	53.6	5.3	75	75-125			
Copper	46.5	1.1	0.21	mg/kg dry	53.6	9.8	68	75-125			*M2*
Lead	48.2	0.54	0.054	mg/kg dry	53.6	6.6	78	75-125			
Molybdenum	38.1	1.1	0.11	mg/kg dry	53.6	0.33	70	75-125			*M2*
Nickel	48.4	1.1	0.48	mg/kg dry	53.6	9.3	73	75-125			*M2*
Selenium	37.4	1.1	0.21	mg/kg dry	53.6	ND	70	75-125			*M2*
Silver	20.1	0.54	0.054	mg/kg dry	26.8	0.064	75	75-125			
Thallium	43.6	0.54	0.11	mg/kg dry	53.6	0.23	81	75-125			
Vanadium	67.4	1.1	0.43	mg/kg dry	53.6	27	75	75-125			
Zinc	75.6	11	1.4	mg/kg dry	53.6	41	65	75-125			*M2*
Matrix Spike Dup Analyzed: 02/22/2007 (7B22114-MSD1)						**Source: IQB2309-02**					
Antimony	12.8	1.1	0.032	mg/kg dry	53.6	0.086	24	75-125	2	20	*M2*
Arsenic	42.5	0.54	0.27	mg/kg dry	53.6	1.9	76	75-125	5	20	
Barium	124	0.54	0.086	mg/kg dry	53.6	83	76	75-125	9	20	
Beryllium	43.3	0.32	0.043	mg/kg dry	53.6	0.53	80	75-125	5	20	
Cadmium	41.3	0.54	0.027	mg/kg dry	53.6	0.12	77	75-125	6	20	
Chromium	57.7	1.1	0.38	mg/kg dry	53.6	14	82	75-125	5	20	
Cobalt	47.9	0.54	0.086	mg/kg dry	53.6	5.3	79	75-125	6	20	
Copper	49.2	1.1	0.21	mg/kg dry	53.6	9.8	74	75-125	6	20	*M2*
Lead	52.4	0.54	0.054	mg/kg dry	53.6	6.6	85	75-125	8	20	
Molybdenum	40.6	1.1	0.11	mg/kg dry	53.6	0.33	75	75-125	6	20	
Nickel	51.9	1.1	0.48	mg/kg dry	53.6	9.3	79	75-125	7	20	
Selenium	39.4	1.1	0.21	mg/kg dry	53.6	ND	74	75-125	5	20	*M2*
Silver	21.0	0.54	0.054	mg/kg dry	26.8	0.064	78	75-125	4	20	
Thallium	46.5	0.54	0.11	mg/kg dry	53.6	0.23	86	75-125	6	20	
Vanadium	70.6	1.1	0.43	mg/kg dry	53.6	27	81	75-125	5	20	
Zinc	81.5	11	1.4	mg/kg dry	53.6	41	76	75-125	8	20	

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Sampled: 02/16/07
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METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B22115 Extracted: 02/22/07											
Blank Analyzed: 02/23/2007 (7B22115-BLK1)											
Aluminum	ND	10	5.0	mg/kg wet							
Boron	ND	5.0	1.0	mg/kg wet							
Lithium	ND	6.3	3.8	mg/kg wet							
Potassium	ND	50	19	mg/kg wet							
Sodium	ND	50	24	mg/kg wet							
Zirconium	ND	25	1.5	mg/kg wet							
LCS Analyzed: 02/23/2007 (7B22115-BS1)											
Aluminum	45.3	10	5.0	mg/kg wet	50.0		91	80-120			
Boron	47.3	5.0	1.0	mg/kg wet	50.0		95	80-120			
Lithium	48.4	6.3	3.8	mg/kg wet	50.0		97	80-120			
Potassium	516	50	19	mg/kg wet	500		103	80-120			
Sodium	496	50	24	mg/kg wet	500		99	80-120			
Zirconium	52.4	25	1.5	mg/kg wet	50.0		105	80-120			
Matrix Spike Analyzed: 02/23/2007 (7B22115-MS1)						**Source: IQB2309-02**					
Aluminum	17000	11	5.4	mg/kg dry	53.6	14000	5597	75-125			*MHA*
Boron	45.6	5.4	1.1	mg/kg dry	53.6	1.1	83	75-125			
Lithium	64.1	6.8	4.1	mg/kg dry	53.6	17	88	75-125			
Potassium	3350	54	20	mg/kg dry	536	2900	84	75-125			
Sodium	606	54	26	mg/kg dry	536	84	97	75-125			
Zirconium	42.9	27	1.6	mg/kg dry	53.6	2.6	75	75-125			
Matrix Spike Dup Analyzed: 02/23/2007 (7B22115-MSD1)						**Source: IQB2309-02**					
Aluminum	17600	11	5.4	mg/kg dry	53.6	14000	6716	75-125	3	20	*MHA*
Boron	46.1	5.4	1.1	mg/kg dry	53.6	1.1	84	75-125	1	20	
Lithium	64.8	6.8	4.1	mg/kg dry	53.6	17	89	75-125	1	20	
Potassium	3450	54	20	mg/kg dry	536	2900	103	75-125	3	20	
Sodium	601	54	26	mg/kg dry	536	84	96	75-125	1	20	
Zirconium	41.5	27	1.6	mg/kg dry	53.6	2.6	73	75-125	3	20	*M2*

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB1815

Sampled: 02/16/07
Received: 02/16/07

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B17034 Extracted: 02/17/07											
Duplicate Analyzed: 02/17/2007 (7B17034-DUP1)						**Source: IQB1815-04**					
pH	7.31	NA	0.00	pH Units		7.22			1	5	
Duplicate Analyzed: 02/17/2007 (7B17034-DUP2)						**Source: IQB1822-01**					
pH	7.57	NA	0.00	pH Units		7.54			0	5	
Batch: 7B19107 Extracted: 02/19/07											
Blank Analyzed: 02/20/2007 (7B19107-BLK1)											
Percent Solids	ND	0.10	0.10	%							
Duplicate Analyzed: 02/20/2007 (7B19107-DUP1)						**Source: IQB1815-03**					
Percent Solids	89.8	0.10	0.10	%		88			2	20	
Batch: 7B26114 Extracted: 02/26/07											
Blank Analyzed: 02/26/2007 (7B26114-BLK1)											
Perchlorate	ND	4.0	0.80	ug/l							
LCS Analyzed: 02/26/2007 (7B26114-BS1)											
Perchlorate	44.6	4.0	0.80	ug/l	50.0		89	85-115			
Matrix Spike Analyzed: 02/27/2007 (7B26114-MS1)						**Source: IQB1815-03**					
Perchlorate	46.0	4.0	0.80	ug/l	50.0	ND	92	80-120			
Matrix Spike Dup Analyzed: 02/27/2007 (7B26114-MSD1)						**Source: IQB1815-03**					
Perchlorate	46.0	4.0	0.80	ug/l	50.0	ND	92	80-120	0	20	

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB1815

Sampled: 02/16/07
Received: 02/16/07

DATA QUALIFIERS AND DEFINITIONS

J	Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
L	Laboratory Control Sample and/or Laboratory Control Sample Duplicate recovery was above the acceptance limits. Analyte not detected, data not impacted.
M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
M2	The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
M-3	Results exceeded the linear range in the MS/MSD and therefore are not available for reporting. The batch was accepted based on acceptable recovery in the Blank Spike (LCS).
M7	The MS and/or MSD were above the acceptance limits. See Blank Spike (LCS).
MHA	Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

ADDITIONAL COMMENTS

For 8260 analyses:

Due to the high water solubility of alcohols and ketones, the calibration criteria for these compounds is <30% RSD. The average % RSD of all compounds in the calibration is 15%, in accordance with EPA methods.

For TICs:

All identifications are tentative and concentrations are estimates based upon spectral comparison to the EPA/NIH library.

For Extractable Fuel Hydrocarbons (EFH, DRO, ORO) :

Unless otherwise noted, Extractable Fuel Hydrocarbons (EFH, DRO, ORO) are quantitated against a Diesel Fuel Standard.

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQB1815

Sampled: 02/16/07
Received: 02/16/07

Certification Summary

TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
EPA 160.3 MOD	Soil	N/A	N/A
EPA 314.0 DI-RFI	Soil		
EPA 3545/8081A	Soil	X	X
EPA 3545/8082	Soil	X	X
EPA 6010B	Soil	X	X
EPA 6020	Soil	X	X
EPA 8015B	Soil	X	X
EPA 8082	Soil	X	X
EPA 8260B	Soil	X	X
EPA 9045C	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

Calscience-SUB *California Cert #1230*
7440 Lincoln Way - Garden Grove, CA 92841
Analysis Performed: 8270C (SIM)
Samples: IQB1815-01, IQB1815-02, IQB1815-03
Analysis Performed: Dry Wt
Samples: IQB1815-01, IQB1815-02, IQB1815-03

Weck Laboratories, Inc
14859 E. Clark Avenue - City of Industry, CA 91745
Analysis Performed: Mercury-7471 (dry wt)
Samples: IQB1815-01, IQB1815-02, IQB1815-03

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

Calscience
Environmental
Laboratories, Inc.

February 27, 2007

Michele Chamberlin
TestAmerica
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5845

Subject: **Calscience Work Order No.: 07-02-1177**
Client Reference: IQB1815

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 2/19/2007 and analyzed in accordance with the attached chain-of-custody.

Unless otherwise noted, all analytical testing was accomplished in accordance with the guidelines established in our Quality Systems Manual, applicable standard operating procedures, and other related documentation. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Calscience Environmental
Laboratories, Inc.
Steven L. Lane
Laboratory Director

Calscience Environmental Laboratories, Inc.

Case Narrative for 07-02-1177

Sample Condition on Receipt

Four soil samples were received as part of this Work Order on February 19, 2007. The sample was transferred to the laboratory in an ice-chest following strict chain-of-custody procedures. The temperature (3.1°C) of the samples was measured upon arrival in the laboratory and were within acceptable limits. The samples were logged into the Laboratory Information Management System (LIMS), given laboratory identification numbers, and stored in refrigeration units pending analysis.

The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in it entirety.

Data Summary

The samples included in this report were analyzed in accordance with the attached chain-of-custody (COC) records. Data is presented on a dry weight basis.

Holding Times

All holding time requirements were met.

Calibration

Frequency and control criteria for initial and continuing calibration verifications were met.

Blanks

The method blank data showed non-detectable levels for all constituents.

Matrix Spikes

Matrix Spikes (MS) and Matrix Spike Duplicates (MSD) were performed at required frequencies. All recoveries were within acceptable limits, with the exception of specific analytes by EPA Method 8270C SIM. Please see Table A for details.

Calscience Environmental Laboratories, Inc.

ACCREDITED IN ACCORDANCE WITH nelac

Case Narrative for 07-02-1177

Table A: Matrix Spike / Matrix Spike Duplicate outside acceptable limits	
EPA Method 8270C SIM	
Batch #	Analytes(s)
070219S05	2-Nitrophenol*, 4-Chloro-3-Methylphenol*, Di-n-Butyl Phthalate* & Dimethyl Phthalate*

*The relative percent difference (RPD) are outside acceptable limits. These recoveries have been flagged with a "4" qualifier.

Laboratory Control Samples

The Laboratory Control Sample (LCS) analyses were performed at the required frequencies. All recoveries were within acceptable limits.

Surrogates

Surrogate recoveries for all samples were within acceptable control limits.

CALSCIENCE ENVIRONMENTAL LABORATORIES, INC.
Sample Summary Report

WORK ORDER #: **07-02-1177** **QAPP:** **0000**

#	Client Sample ID	Matrix	Date Collected	NoC	Comment
1	IQB1815-01	S	02/19/2007	1	
2	IQB1815-02	S	02/19/2007	1	
3	IQB1815-03	S	02/19/2007	1	MS/MSD on this sample.
4	IQB1815-04	S	02/19/2007	1	EPA 8270C: Extract & Hold

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 07 - 02 - 1177

Cooler 1 of 1

SAMPLE RECEIPT FORM

CLIENT: TEST AMERICA **DATE:** 2-19-07

TEMPERATURE – SAMPLES RECEIVED BY:

CALSCIENCE COURIER:

_____ Chilled, cooler with temperature blank provided.
_____ Chilled, cooler without temperature blank.
_____ Chilled and placed in cooler with wet ice.
_____ Ambient and placed in cooler with wet ice.
_____ Ambient temperature.
_____ °C Temperature blank.

LABORATORY (Other than Calscience Courier):

_____ °C Temperature blank.
3.1 °C IR thermometer.
_____ Ambient temperature.

Initial: WB

CUSTODY SEAL INTACT:

Sample(s): _____ Cooler: _____ No (Not Intact) : _____ Not Present: ✓

Initial: WB

SAMPLE CONDITION:

	Yes	No	N/A
Chain-Of-Custody document(s) received with samples	✓		
Sampler's name indicated on COC			✓
Sample container label(s) consistent with custody papers	✓		
Sample container(s) intact and good condition	✓		
Correct containers and volume for analyses requested	✓		
Proper preservation noted on sample label(s)			✓
VOA vial(s) free of headspace.			✓
Tedlar bag(s) free of condensation			✓

Initial: WB

COMMENTS:

TestAmerica
ANALYTICAL TESTING CORPORATION

07 - 02 - 1177

SUBCONTRACT ORDER - PROJECT # IQB1815

SENDING LABORATORY:	RECEIVING LABORATORY:
TestAmerica - Irvine, CA 17461 Derian Avenue. Suite 100 Irvine, CA 92614 Phone: (949) 261-1022 Fax: (949) 260-3297 Project Manager: Michele Chamberlin	Calscience-SUB 7440 Lincoln Way Garden Grove, CA 92841 Phone :714-895-5494 Fax: 714-894-7501 Project Location: California

Work Order Comments: Level 4 QC. Boeing EDD, Report to MDL w/ J flags, report in dry weight, 2 week TAT.

Standard TAT is requested unless specific due date is requested => Due Date:_____ Initials:_____

Analysis	Expiration		Comments
Sample ID: IQB1815-01 Soil	**Sampled: 02/16/07 08:36**		
8270C (SIM)-OUT	03/02/07 08:36		NDMA+PAHS+phthltes(1 run).Sub=Calsci,calc w/ sx wt
Dry Wt-OUT	03/16/07 08:36		% solids, sub to Calscience, $10/sample
Level 3 Data Package - Out	03/16/07 08:36		Sub to Calscience,TA Lvl IV,EDD=Boeing
Containers Supplied:			
2 oz jar (IQB1815-01F)			
Sample ID: IQB1815-02 Soil	**Sampled: 02/16/07 08:36**		
8270C (SIM)-OUT	03/02/07 08:36		NDMA+PAHS+phthltes(1 run).Sub=Calsci,calc w/ sx wt
Dry Wt-OUT	03/16/07 08:36		% solids, sub to Calscience, $10/sample
Level 3 Data Package - Out	03/16/07 08:36		Sub to Calscience,TA Lvl IV,EDD=Boeing
Containers Supplied:			
2 oz jar (IQB1815-02F)			
Sample ID: IQB1815-03 Soil	**Sampled: 02/16/07 09:21**	**MS/MSD**	
8270C (SIM)-OUT	03/02/07 09:21		NDMA+PAHS+phthltes(1 run).Sub=Calsci,calc w/ sx wt
Dry Wt-OUT	03/16/07 09:21		% solids, sub to Calscience, $10/sample
Level 3 Data Package - Out	03/16/07 09:21		Sub to Calscience,TA Lvl IV,EDD=Boeing
MS/MSD	03/16/07 09:21		
Containers Supplied:			
4 oz Jar (IQB1815-03H)			
Sample ID: IQB1815-04 Soil	**Sampled: 02/16/07 09:46**		
Extract/Hold-8270C-SIM-OUT	03/02/07 09:46		Sub to Calscience
Containers Supplied:			
2 oz jar (IQB1815-04D)			

Released By	Date	Time	Received By	Date	Time
Released By	Date	Time	Received By	Date	Time

TestAmerica
ANALYTICAL TESTING CORPORATION

07-02-1177

SUBCONTRACT ORDER - PROJECT # IQB1815

SAMPLE INTEGRITY:

All containers intact: ☐ Yes ☐ No
Custody Seals Present: ☐ Yes ☐ No
Sample labels/COC agree: ☐ Yes ☐ No
Samples Preserved Properly: ☐ Yes ☐ No
Samples Received On Ice:: ☐ Yes ☐ No
Samples Received at (temp): _____

Released By	Date	Time	Received By	Date	Time
Released By	Date	Time	Received By	Date	Time

TestAmerica
ANALYTICAL TESTING CORPORATION

1177

SUBCONTRACT ORDER - PROJECT # IQB1815

SENDING LABORATORY:
TestAmerica - Irvine, CA
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Michele Chamberlin

RECEIVING LABORATORY:
Calscience-SUB
7440 Lincoln Way
Garden Grove, CA 92841
Phone :714-895-5494
Fax: 714-894-7501

Project Location: California

Work Order Comments: Level 4 QC. Boeing EDD, Report to MDL w/ J flags, report in dry weight, 2 week TAT.

Standard TAT is requested unless specific due date is requested => Due Date:_____ Initials:_____

Analysis	Expiration		Comments
Sample ID: IQB1815-01 Soil	**Sampled: 02/16/07 08:36**		
8270C (SIM)-OUT	03/02/07 08:36		NDMA+PAHS+phthltes(1 run).Sub=Calsci,calc w/ sx wt
Level 3 Data Package - Out	03/16/07 08:36		Sub to Calscience,TA Lvl IV,EDD=Boeing
Containers Supplied:			
2 oz jar (IQB1815-01F)			
Sample ID: IQB1815-02 Soil	**Sampled: 02/16/07 08:36**		
8270C (SIM)-OUT	03/02/07 08:36		NDMA+PAHS+phthltes(1 run).Sub=Calsci,calc w/ sx wt
Level 3 Data Package - Out	03/16/07 08:36		Sub to Calscience,TA Lvl IV,EDD=Boeing
Containers Supplied:			
2 oz jar (IQB1815-02F)			
Sample ID: IQB1815-03 Soil	**Sampled: 02/16/07 09:21**	**MS/MSD**	
8270C (SIM)-OUT	03/02/07 09:21		NDMA+PAHS+phthltes(1 run).Sub=Calsci,calc w/ sx wt
Level 3 Data Package - Out	03/16/07 09:21		Sub to Calscience,TA Lvl IV,EDD=Boeing
MS/MSD	03/16/07 09:21		
Containers Supplied:			
4 oz Jar (IQB1815-03H)			
Sample ID: IQB1815-04 Soil	**Sampled: 02/16/07 09:46**		
Extract/Hold-8270C-SIM-OUT	03/02/07 09:46		Sub to Calscience
Containers Supplied:			
2 oz jar (IQB1815-04D)			

Released By	Date	Time	Received By	Date	Time
[signature]	2/19/07	0900	[signature] TAI	2/19/07	0900
[signature] TAI	2/19/07	0950	[signature] CC	2/19/07	0950

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

TestAmerica
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5845

Date Received: 02/19/07
Work Order No: 07-02-1177
Preparation: N/A
Method: EPA 160.3

Project: IQB1815

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
07-02-1178-4	**Solid**	**N/A**	**N/A**	**02/21/07**	**70221TSD1**

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
Solids, Total	84.7	84.5	0	0-25	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

TestAmerica
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5845

Date Received: 02/19/07
Work Order No: 07-02-1177
Preparation: EPA 3545
Method: EPA 8270C SIM

Project IQB1815

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
IQB1815-03	**Solid**	**GC/MS N**	**02/19/07**	**02/22/07**	**070219S05**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
2,4,6-Trichlorophenol	73	88	40-160	19	0-20	
2,4-Dichlorophenol	74	90	40-160	20	0-20	
2-Methylphenol	78	89	40-160	13	0-20	
2-Nitrophenol	92	117	40-160	24	0-20	4
4-Chloro-3-Methylphenol	82	101	40-160	21	0-20	4
Acenaphthene	88	106	40-106	18	0-20	
Benzo (a) Pyrene	93	112	17-163	19	0-20	
Chrysene	93	107	17-168	14	0-20	
Di-n-Butyl Phthalate	101	130	40-160	24	0-20	4
Dimethyl Phthalate	86	111	40-160	25	0-20	4
Fluoranthene	93	112	26-137	18	0-20	
Fluorene	90	109	59-121	19	0-20	
N-Nitrosodimethylamine	92	112	40-160	19	0-20	
Naphthalene	89	103	21-133	14	0-20	
Phenanthrene	86	102	54-120	18	0-20	
Phenol	75	91	40-160	19	0-20	
Pyrene	90	113	6-156	23	0-46	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ACCREDITED IN ACCORDANCE WITH nelac

TestAmerica
17461 Derian Avenue, Suite 100
Irvine, CA 92614-5845

Date Received: N/A
Work Order No: 07-02-1177
Preparation: EPA 3545
Method: EPA 8270C SIM

Project: IQB1815

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-413-26	**Solid**	**GC/MS N**	**02/16/07**	**02/23/07**	**070219L05**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
2,4,6-Trichlorophenol	76	76	40-160	0	0-20	
2,4-Dichlorophenol	74	74	40-160	1	0-20	
2-Methylphenol	85	85	40-160	0	0-20	
2-Nitrophenol	88	91	40-160	4	0-20	
4-Chloro-3-Methylphenol	88	87	40-160	1	0-20	
Acenaphthene	84	83	48-108	1	0-11	
Benzo (a) Pyrene	89	89	17-163	1	0-20	
Chrysene	84	83	17-168	1	0-20	
Di-n-Butyl Phthalate	90	91	40-160	1	0-20	
Dimethyl Phthalate	87	86	40-160	1	0-20	
Fluoranthene	88	87	26-137	1	0-20	
Fluorene	85	84	59-121	1	0-20	
N-Nitrosodimethylamine	88	84	40-160	4	0-20	
Naphthalene	83	83	21-133	0	0-20	
Phenanthrene	82	82	54-120	0	0-20	
Phenol	77	78	40-160	2	0-20	
Pyrene	93	95	28-106	2	0-16	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 07-02-1177

Qualifier	Definition
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike or Matrix Spike Duplicate compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported with no further corrective action required.
A	Result is the average of all dilutions, as defined by the method.
B	Analyte was present in the associated method blank.
C	Analyte presence was not confirmed on primary column.
E	Concentration exceeds the calibration range.
H	Sample received and/or analyzed past the recommended holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
N	Nontarget Analyte.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at the laboratory method detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

TestAmerica
ANALYTICAL TESTING CORPORATION

7022010

SUBCONTRACT ORDER - PROJECT # IQB1815

SENDING LABORATORY:
TestAmerica - Irvine, CA
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Michele Chamberlin

RECEIVING LABORATORY:
Weck Laboratories, Inc
14859 E. Clark Avenue
City of Industry, CA 91745
Phone :(626) 336-2139
Fax: (626) 336-2634

Project Location: California

Work Order Comments: Level 4 QC. Boeing EDD, Report to MDL w/ J flags, report in dry weight, 2 week TAT.

Standard TAT is requested unless specific due date is requested => Due Date:_____ **Initials:**_____

Analysis	Expiration		Comments
Sample ID: IQB1815-01 Soil	**Sampled: 02/16/07 08:36**		
Level 4 Data Package - Weck	03/16/07 08:36		sub to Weck, provide Element transfer EDD
Mercury-7471 (dry wt)-OUT	03/16/07 08:36		J & B flag, sub to Weck, 9 day TAT
Containers Supplied:			
2 oz jar (IQB1815-01E)			
Sample ID: IQB1815-02 Soil	**Sampled: 02/16/07 08:36**		
Level 4 Data Package - Weck	03/16/07 08:36		sub to Weck, provide Element transfer EDD
Mercury-7471 (dry wt)-OUT	03/16/07 08:36		J & B flag, sub to Weck, 9 day TAT
Containers Supplied:			
2 oz jar (IQB1815-02E)			
Sample ID: IQB1815-03 Soil	**Sampled: 02/16/07 09:21**	**MS/MSD**	
Level 4 Data Package - Weck	03/16/07 09:21		sub to Weck, provide Element transfer EDD
Mercury-7471 (dry wt)-OUT	03/16/07 09:21		J & B flag, sub to Weck, 9 day TAT
MS/MSD Required - Out	03/16/07 09:21		
Containers Supplied:			
4 oz Jar (IQB1815-03G)			

SAMPLE INTEGRITY:

All containers intact: ☒ Yes ☐ No Sample labels/COC agree: ☒ Yes ☐ No Samples Received On Ice:: ☒ Yes ☐ No
Custody Seals Present: ☐ Yes ☒ N/A Samples Preserved Properly: ☒ Yes ☐ No Samples Received at (temp): 4.1

Released By	Date	Time	Received By	Date	Time
				2/20/07	7:00
	2/20/07	843		2/20/07	8:45

Weck Laboratories, Inc.
Analytical Laboratory Services - Since 1964

14859 E. Clark Ave., Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634
info@wecklabs.com www.wecklabs.com

CERTIFICATE OF ANALYSIS

Client: TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine, CA 92614
Attention: Michele Chamberlin

Phone: (949) 261-1022
Fax: (949) 260-3297

Report Date: 03/06/07 15:02
Received Date: 02/20/07 08:45
Turn Around: Normal

Work Order #: 7022010

Client Project: IQB1815

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Michele Chamberlin :

Enclosed are the results of analyses for samples received 02/20/07 08:45 with the Chain of Custody document. The samples were received in good condition, at 4.1 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Reviewed by:
Taylor Maligmat

Taylor Maligmat
Project Manager

Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7022010
Project ID: IQB1815

Date Received: 02/20/07 08:45
Date Reported: 03/06/07 15:02

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Laboratory	Matrix	Date Sampled
IQB1815-01	client		7022010-01	Solid	02/16/07 08:36
IQB1815-02	client		7022010-02	Solid	02/16/07 08:36
IQB1815-03	client		7022010-03	Solid	02/16/07 09:21

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Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7022010
Project ID: IQB1815

Date Received: 02/20/07 08:45
Date Reported: 03/06/07 15:02

QUALITY CONTROL SECTION

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TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7022010
Project ID: IQB1815

Date Received: 02/20/07 08:45
Date Reported: 03/06/07 15:02

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch W7B1018 - General Preparation										
Duplicate (W7B1018-DUP1)		**Source: 7022008-01**		Analyzed: 02/26/07						
% Solids	87.1	0.100	% by Weight		86.6			0.576	20	

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Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7022010
Project ID: IQB1815

Date Received: 02/20/07 08:45
Date Reported: 03/06/07 15:02

Metals (Non-Aqueous) by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch W7B0833 - EPA 7471A										
Blank (W7B0833-BLK1)				Analyzed: 02/22/07						
Mercury, Total	0.000902	0.010	mg/kg wet							J
LCS (W7B0833-BS1)				Analyzed: 02/22/07						
Mercury, Total	0.0806	0.010	mg/kg wet	0.0833		96.8	80-120			
Matrix Spike (W7B0833-MS1)	**Source: 7022010-03**			Analyzed: 02/22/07						**QM-02**
Mercury, Total	2.20	0.44	mg/kg dry	0.0876	2.2	0.00	70-130			
Matrix Spike Dup (W7B0833-MSD1)	**Source: 7022010-03**			Analyzed: 02/22/07						
Mercury, Total	2.31	0.44	mg/kg dry	0.0905	2.2	122	70-130	4.88	25	QM-02

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7022010
Project ID: IQB1815

Date Received: 02/20/07 08:45
Date Reported: 03/06/07 15:02

Notes and Definitions

QM-02	The RPD and/or percent recovery for this QC spike sample cannot be accurately calculated due to the high concentration of analyte inherent in the sample.
J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070215_02

Customer Information		Project Information	
Site:	SSFL	Client Name:	DOE
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil
Report to:	Lisa Tucker	Project Number:	1891264
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan
	Suite 300	PM Phone #:	(626) 568-6897
	San Diego	Field Contact:	
	CA	Field Contact #:	
	92123	Lab Name:	Test America, Inc.
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100
			Irvine, CA 92606
		Lab Phone:	(949) 261-1022

Project Information			
Collector:	Shelby Valenzuela	Boeing PM:	
Contact #:			

Requested Analyses

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract Hold

Sample Name	Matrix	Date	Time	No. of Containers	Perchlorate 314 Soil DI-WET	Comments
FSBS0041S01	Soil	2/15/2007	8:35	1	H	Hold analysis
FSBS0042S01	Soil	2/15/2007	8:40	1	H	Hold analysis
FSBS0044S01	Soil	2/15/2007	8:44	1	H	Hold analysis
FSBS0043S01	Soil	2/15/2007	8:51	1	H	Hold analysis
FSBS0045S01	Soil	2/15/2007	8:59	1	H	Hold analysis
FSBS0046S01	Soil	2/15/2007	9:25	1	H	Hold analysis
FSBS0048S01	Soil	2/15/2007	9:30	1	H	Hold analysis
FSBS0050S01	Soil	2/15/2007	9:34	1	H	Hold analysis
FSBS0047S01	Soil	2/15/2007	9:39	1	H	Hold analysis
FSBS0049S01	Soil	2/15/2007	9:44	1	H	Hold analysis

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/16/2007		2/16/07		2/16/07		2/16/07
Company: MWH	Time: 0945	Company: TEST AMERICA	Time: 0943	Company: TEST AMERICA	Time: 1720	Company: TAI	Time: 1920

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

HE 2-16-07
2120

4 of 7

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070215_02

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:	
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:			
Report to:	Lisa Tucker	Project Number:	1891264				
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan				
	Suite 300	PM Phone #:	(626) 568-6897				
	San Diego	Field Contact:					
	CA	Field Contact #:					
	92123	Lab Name:	Test America, Inc.				
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin				
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100				
			Irvine, CA 92606				
		Lab Phone:	(949) 261-1022				

Sample Name	Matrix	Date	Time	No. of Containers	Perchlorate 314 Soil DI-WET	Comments
FSBS0062S01	Soil	2/15/2007	10:08	1	10	
FSBS0051S01	Soil	2/15/2007	10:32	1	10	
FSBS0052S01	Soil	2/15/2007	10:35	1	10	
FSBS0055S01	Soil	2/15/2007	10:37	1	H	Hold analysis
FSBS0053S01	Soil	2/15/2007	10:40	1	H	Hold analysis
FSBS0054S01	Soil	2/15/2007	10:44	1	10	
FSBS0031S01	Soil	2/15/2007	13:18	1	H	Hold analysis
FSBS0033S01	Soil	2/15/2007	13:20	1	10	
FSBS0035S01	Soil	2/15/2007	13:24	1	H	Hold analysis
FSBS0032S01	Soil	2/15/2007	13:29	1	10	

Requested Analyses

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract Hold

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
Ed Sara	2/16/2007	BD Kocan	2/16/07	BD Kocan	2/16/07	Eduardo Ni	2/16/07
Company: MWH	Time: 0943	Company: TEST AMERICA	Time: 0945	Company: TEST AMERICA	Time: 1020	Company: TAI	Time: 1920

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

4/7

5.5/2.0

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070215_02

Customer Information		Project Information	
Site:	SSFL	Client Name:	DOE
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil
Report to:	Lisa Tucker	Project Number:	1891264
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan
	Suite 300	PM Phone #:	(626) 568-6897
	San Diego	Field Contact:	
	CA	Field Contact #:	
	92123	Lab Name:	Test America, Inc.
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100
			Irvine, CA 92606
		Lab Phone:	(949) 261-1022

Project Information			
Collector:	Shelby Valenzuela	Boeing PM:	
Contact #:			

Requested Analyses

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract Hold

Sample Name	Matrix	Date	Time	No. of Containers	Perchlorate 314 Soil DI-WET	Comments
FSBS0034S01	Soil	2/15/2007	13:33	1	H	Hold analysis
FSBS0036S01	Soil	2/15/2007	13:59	1	10	

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
Ed Sarau	2/16/2007	[signature]	2/16/07	[signature]	2/16/07	[signature]	2/16/07
Company: MWH	**Time:** 0945	**Company:** TES AMERICA	**Time:** 0945	**Company:** TES AMERICA	**Time:** 1100	**Company:** TAI	**Time:** 1920

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

417

5.5/5.0

TestAmerica
ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project: SSFL Group 8 - DOE
1891264

Sampled: 02/15/07
Received: 02/16/07
Issued: 03/03/07 18:27

NELAP #01108CA California ELAP#1197 CSDLAC #10256

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 3 pages, are included and are an integral part of this report.
This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

LABORATORY ID	CLIENT ID	MATRIX
IQB1861-11	FSBS0062S01	Soil
IQB1861-12	FSBS0051S01	Soil
IQB1861-13	FSBS0052S01	Soil
IQB1861-16	FSBS0054S01	Soil
IQB1861-18	FSBS0033S01	Soil
IQB1861-20	FSBS0032S01	Soil
IQB1861-22	FSBS0036S01	Soil

Reviewed By:

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB1861

Sampled: 02/15/07
Received: 02/16/07

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B26114 Extracted: 02/26/07											
Blank Analyzed: 02/26/2007 (7B26114-BLK1)											
Perchlorate	ND	4.0	0.80	ug/l							
LCS Analyzed: 02/26/2007 (7B26114-BS1)											
Perchlorate	44.6	4.0	0.80	ug/l	50.0		89	85-115			
Matrix Spike Analyzed: 02/27/2007 (7B26114-MS1)						**Source: IQB1815-03**					
Perchlorate	46.0	4.0	0.80	ug/l	50.0	ND	92	80-120			
Matrix Spike Dup Analyzed: 02/27/2007 (7B26114-MSD1)						**Source: IQB1815-03**					
Perchlorate	46.0	4.0	0.80	ug/l	50.0	ND	92	80-120	0	20	
Batch: 7B27069 Extracted: 02/27/07											
Blank Analyzed: 02/27/2007 (7B27069-BLK1)											
Perchlorate	ND	4.0	0.80	ug/l							
LCS Analyzed: 02/27/2007 (7B27069-BS1)											
Perchlorate	53.0	4.0	0.80	ug/l	50.0		106	85-115			
Matrix Spike Analyzed: 02/27/2007 (7B27069-MS1)						**Source: IQB1861-20**					
Perchlorate	52.1	4.0	0.80	ug/l	50.0	ND	104	80-120			
Matrix Spike Dup Analyzed: 02/27/2007 (7B27069-MSD1)						**Source: IQB1861-20**					
Perchlorate	52.6	4.0	0.80	ug/l	50.0	ND	105	80-120	1	20	

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB1861

Sampled: 02/15/07
Received: 02/16/07

DATA QUALIFIERS AND DEFINITIONS

RL1 Reporting limit raised due to sample matrix effects.

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

RPD Relative Percent Difference

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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ANALYTICAL TESTING CORPORATION
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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQB1861

Sampled: 02/15/07
Received: 02/16/07

Certification Summary

TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
EPA 314.0 DI-RFI	Soil		

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070221_00

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:	
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:			
Report to:	Lisa Tucker	Project Number:	1891264				
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan				
	Suite 300	PM Phone #:	(626) 568-6897				
	San Diego	Field Contact:					
	CA	Field Contact #:					
	92123	Lab Name:	Test America, Inc.				
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin				
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100				
			Irvine, CA 92606				
		Lab Phone:	(949) 261-1022				

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Metals 6010B/6020 Soil Group 8	Metals 7471A Soil Mercury	pH by SW9045C - Soil	Comments
PRBS0003S01	Soil	2/21/2007	9:15	2	10	10	10	10	
PRBS0003S02	Soil	2/21/2007	9:35	2	H	H	H	10	Hold all analysis except for pH
PRBS0002S01	Soil	2/21/2007	11:00	2	10	10	10	10	
PRBS0002S02	Soil	2/21/2007	11:30	2	H	H	H	10	Hold all analysis except for pH
PRBS0006S01	Soil	2/21/2007	12:30	2	10	10	10	10	
PRBS0006S02	Soil	2/21/2007	12:45	2	H	H	H	10	Hold all analysis except for pH
PRBS0001S01	Soil	2/21/2007	13:05	2	10	10	10	10	
PRBS0001S02	Soil	2/21/2007	13:15	2	H	H	H	10	Hold all analysis except for pH

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract_Hold

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
[signature]	2/22/2007	[signature]	02/22/07	[signature]	2/22/07	[signature]	2/22/07
Company: MWH	Time: 1510	Company: TESTAMERICA-IRVINE	Time: 1510	Company: TESTAME	Time: 2030	Company: ~~TESTAME EHCOT~~	Time: 2037

Comments: 4°C

Geotracker EDF ☐

Data Validation Package ☑ Level IV

HE 2-22-07
2115

411

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070221_00

Page: 2 of 2

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:	
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:			
Report to:	Lisa Tucker	Project Number:	1891264	Requested Analyses			Instructions/TAT
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan				Legend: Numerical values for analyses equate to turn around time in days H - Hold EH - Extract_Hold
	Suite 300	PM Phone #:	(626) 568-6897				
	San Diego	Field Contact:					
	CA	Field Contact #:					
	92123	Lab Name:	Test America, Inc.				
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin				
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100				
			Irvine, CA 92606				
		Lab Phone:	(949) 261-1022				

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Metals 6010B/6020 Soil Group 8	Metals 7471A Soil Mercury	pH by SW9045C - Soil	Comments
PRBS0004S01	Soil	2/21/2007	13:40	2	10	10	10	10	

4°C

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/22/2007		02/22/07		2/22/07		2/22
Company: MWH	Time: 1510	Company: TESTAMERICA-IRVINE	Time: 1510	Company: TESTAMERICA	Time: 2037	Company: TAI	Time: 2032

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

TestAmerica
ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project: SSFL Group 8 - DOE
1891264

Sampled: 02/21/07
Received: 02/22/07
Issued: 03/16/07 15:54

NELAP #01108CA California ELAP#1197 CSDLAC #10256

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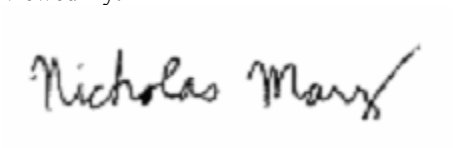
This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT:	Samples were received intact, at 4°C, on ice and with chain of custody documentation.
HOLDING TIMES:	All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.
PRESERVATION:	Samples requiring preservation were verified prior to sample analysis.
QA/QC CRITERIA:	All analyses met method criteria, except as noted in the report with data qualifiers.
COMMENTS:	Results that fall between the MDL and RL are 'J' flagged.
SUBCONTRACTED:	Refer to the last page for specific subcontract laboratory information included in this report.
ADDITIONAL INFORMATION:	Enclosed are complete final results. Mercury data has been added.

LABORATORY ID	CLIENT ID	MATRIX
IQB2448-01	PRBS0003S01	Soil
IQB2448-02	PRBS0003S02	Soil
IQB2448-03	PRBS0002S01	Soil
IQB2448-04	PRBS0002S02	Soil
IQB2448-05	PRBS0005S01	Soil
IQB2448-06	PRBS0005S02	Soil
IQB2448-07	PRBS0001S01	Soil
IQB2448-08	PRBS0001S02	Soil
IQB2448-09	PRBS0004S01	Soil

Reviewed By:



TestAmerica - Irvine, CA
Nicholas Marz For Michele Chamberlin
Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB2448

Sampled: 02/21/07
Received: 02/22/07

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: PRBS0003S01 (IQB2448-01) - Soil					
EPA 9045C	1	02/21/2007 09:15	02/22/2007 20:30	02/23/2007 11:55	02/23/2007 13:20
Sample ID: PRBS0003S02 (IQB2448-02) - Soil					
EPA 9045C	1	02/21/2007 09:35	02/22/2007 20:30	02/23/2007 11:55	02/23/2007 13:20
Sample ID: PRBS0002S01 (IQB2448-03) - Soil					
EPA 9045C	1	02/21/2007 11:00	02/22/2007 20:30	02/23/2007 11:55	02/23/2007 13:20
Sample ID: PRBS0002S02 (IQB2448-04) - Soil					
EPA 9045C	1	02/21/2007 11:30	02/22/2007 20:30	02/23/2007 11:55	02/23/2007 13:20
Sample ID: PRBS0005S01 (IQB2448-05) - Soil					
EPA 9045C	1	02/21/2007 12:30	02/22/2007 20:30	02/23/2007 11:55	02/23/2007 13:20
Sample ID: PRBS0005S02 (IQB2448-06) - Soil					
EPA 9045C	1	02/21/2007 12:45	02/22/2007 20:30	02/23/2007 11:55	02/23/2007 13:20
Sample ID: PRBS0001S01 (IQB2448-07) - Soil					
EPA 9045C	1	02/21/2007 13:05	02/22/2007 20:30	02/23/2007 11:55	02/23/2007 13:20
Sample ID: PRBS0001S02 (IQB2448-08) - Soil					
EPA 9045C	1	02/21/2007 13:15	02/22/2007 20:30	02/23/2007 11:55	02/23/2007 13:20
Sample ID: PRBS0004S01 (IQB2448-09) - Soil					
EPA 9045C	1	02/21/2007 13:40	02/22/2007 20:30	02/23/2007 11:55	02/23/2007 13:20

TestAmerica - Irvine, CA
Nicholas Marz For Michele Chamberlin
Project Manager

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Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQB2448

Sampled: 02/21/07
Received: 02/22/07

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B23087 Extracted: 02/23/07											
Blank Analyzed: 02/23/2007 (7B23087-BLK1)											
Antimony	ND	1.0	0.030	mg/kg wet							
Arsenic	ND	0.50	0.25	mg/kg wet							
Barium	ND	0.50	0.080	mg/kg wet							
Beryllium	ND	0.30	0.040	mg/kg wet							
Cadmium	ND	0.50	0.025	mg/kg wet							
Chromium	ND	1.0	0.35	mg/kg wet							
Cobalt	ND	0.50	0.080	mg/kg wet							
Copper	0.452	1.0	0.20	mg/kg wet							*J*
Lead	ND	0.50	0.050	mg/kg wet							
Molybdenum	ND	1.0	0.10	mg/kg wet							
Nickel	ND	1.0	0.45	mg/kg wet							
Selenium	ND	1.0	0.20	mg/kg wet							
Silver	ND	0.50	0.050	mg/kg wet							
Thallium	ND	0.50	0.10	mg/kg wet							
Vanadium	ND	1.0	0.40	mg/kg wet							
Zinc	ND	10	1.3	mg/kg wet							
LCS Analyzed: 02/23/2007 (7B23087-BS1)											
Antimony	45.2	1.0	0.030	mg/kg wet	50.0		90	80-120			
Arsenic	47.9	0.50	0.25	mg/kg wet	50.0		96	80-120			
Barium	47.2	0.50	0.080	mg/kg wet	50.0		94	80-120			
Beryllium	50.4	0.30	0.040	mg/kg wet	50.0		101	80-120			
Cadmium	44.8	0.50	0.025	mg/kg wet	50.0		90	80-120			
Chromium	49.3	1.0	0.35	mg/kg wet	50.0		99	80-120			
Cobalt	48.5	0.50	0.080	mg/kg wet	50.0		97	80-120			
Copper	46.1	1.0	0.20	mg/kg wet	50.0		92	80-120			
Lead	48.9	0.50	0.050	mg/kg wet	50.0		98	80-120			
Molybdenum	46.0	1.0	0.10	mg/kg wet	50.0		92	80-120			
Nickel	47.3	1.0	0.45	mg/kg wet	50.0		95	80-120			
Selenium	46.9	1.0	0.20	mg/kg wet	50.0		94	80-120			
Silver	23.8	0.50	0.050	mg/kg wet	25.0		95	80-120			
Thallium	49.5	0.50	0.10	mg/kg wet	50.0		99	80-120			
Vanadium	48.3	1.0	0.40	mg/kg wet	50.0		97	80-120			
Zinc	43.5	10	1.3	mg/kg wet	50.0		87	80-120			

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1891264
Report Number: IQB2448

Sampled: 02/21/07
Received: 02/22/07

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B23087 Extracted: 02/23/07											
Matrix Spike Analyzed: 02/23/2007 (7B23087-MS1)						**Source: IQB2448-07**					
Antimony	11.9	1.1	0.032	mg/kg dry	53.9	0.40	21	75-125			*M2*
Arsenic	48.1	0.54	0.27	mg/kg dry	53.9	2.3	85	75-125			
Barium	120	0.54	0.086	mg/kg dry	53.9	75	83	75-125			
Beryllium	49.2	0.32	0.043	mg/kg dry	53.9	0.53	90	75-125			
Cadmium	43.9	0.54	0.027	mg/kg dry	53.9	0.11	81	75-125			
Chromium	65.0	1.1	0.38	mg/kg dry	53.9	17	89	75-125			
Cobalt	53.3	0.54	0.086	mg/kg dry	53.9	5.5	89	75-125			
Copper	51.1	1.1	0.22	mg/kg dry	53.9	7.7	81	75-125			
Lead	53.1	0.54	0.054	mg/kg dry	53.9	5.4	88	75-125			
Molybdenum	44.6	1.1	0.11	mg/kg dry	53.9	0.61	82	75-125			
Nickel	56.5	1.1	0.49	mg/kg dry	53.9	9.7	87	75-125			
Selenium	46.5	1.1	0.22	mg/kg dry	53.9	0.32	86	75-125			
Silver	22.6	0.54	0.054	mg/kg dry	27.0	ND	84	75-125			
Thallium	48.1	0.54	0.11	mg/kg dry	53.9	0.32	89	75-125			
Vanadium	80.2	1.1	0.43	mg/kg dry	53.9	32	89	75-125			
Zinc	86.8	11	1.4	mg/kg dry	53.9	46	76	75-125			
Matrix Spike Dup Analyzed: 02/23/2007 (7B23087-MSD1)						**Source: IQB2448-07**					
Antimony	11.0	1.1	0.032	mg/kg dry	53.9	0.40	20	75-125	8	20	*M2*
Arsenic	47.9	0.54	0.27	mg/kg dry	53.9	2.3	85	75-125	0	20	
Barium	119	0.54	0.086	mg/kg dry	53.9	75	82	75-125	1	20	
Beryllium	48.7	0.32	0.043	mg/kg dry	53.9	0.53	89	75-125	1	20	
Cadmium	43.2	0.54	0.027	mg/kg dry	53.9	0.11	80	75-125	2	20	
Chromium	65.3	1.1	0.38	mg/kg dry	53.9	17	90	75-125	1	20	
Cobalt	53.1	0.54	0.086	mg/kg dry	53.9	5.5	88	75-125	0	20	
Copper	50.8	1.1	0.22	mg/kg dry	53.9	7.7	80	75-125	1	20	
Lead	54.4	0.54	0.054	mg/kg dry	53.9	5.4	91	75-125	2	20	
Molybdenum	44.3	1.1	0.11	mg/kg dry	53.9	0.61	81	75-125	1	20	
Nickel	56.0	1.1	0.49	mg/kg dry	53.9	9.7	86	75-125	1	20	
Selenium	45.9	1.1	0.22	mg/kg dry	53.9	0.32	85	75-125	1	20	
Silver	22.3	0.54	0.054	mg/kg dry	27.0	ND	83	75-125	1	20	
Thallium	47.9	0.54	0.11	mg/kg dry	53.9	0.32	88	75-125	0	20	
Vanadium	80.0	1.1	0.43	mg/kg dry	53.9	32	89	75-125	0	20	
Zinc	87.6	11	1.4	mg/kg dry	53.9	46	77	75-125	1	20	

TestAmerica - Irvine, CA
Nicholas Marz For Michele Chamberlin
Project Manager

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9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQB2448

Sampled: 02/21/07
Received: 02/22/07

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B23097 Extracted: 02/23/07											
Blank Analyzed: 02/24/2007-03/05/2007 (7B23097-BLK1)											
Aluminum	ND	10	5.0	mg/kg wet							
Boron	1.32	5.0	1.0	mg/kg wet							*J*
Lithium	ND	6.3	3.8	mg/kg wet							
Potassium	ND	50	19	mg/kg wet							
Sodium	27.5	50	24	mg/kg wet							*J*
Zirconium	ND	25	1.5	mg/kg wet							
LCS Analyzed: 02/24/2007-03/05/2007 (7B23097-BS1)											
Aluminum	47.0	10	5.0	mg/kg wet	50.0		94	80-120			
Boron	49.5	5.0	1.0	mg/kg wet	50.0		99	80-120			
Lithium	49.2	6.3	3.8	mg/kg wet	50.0		98	80-120			
Potassium	521	50	19	mg/kg wet	500		104	80-120			
Sodium	557	50	24	mg/kg wet	500		111	80-120			
Zirconium	56.5	25	1.5	mg/kg wet	50.0		113	80-120			
Matrix Spike Analyzed: 02/24/2007-02/27/2007 (7B23097-MS1)						**Source: IQB2448-07**					
Aluminum	16800	11	5.4	mg/kg dry	53.9	15000	3340	75-125			*MHA*
Boron	51.0	5.4	1.1	mg/kg dry	53.9	3.1	89	75-125			
Lithium	83.6	6.8	4.1	mg/kg dry	53.9	29	101	75-125			
Potassium	4120	54	20	mg/kg dry	539	3500	115	75-125			
Sodium	682	54	26	mg/kg dry	539	180	93	75-125			
Zirconium	37.6	27	1.6	mg/kg dry	53.9	ND	70	75-125			*M2*
Matrix Spike Dup Analyzed: 02/24/2007-02/27/2007 (7B23097-MSD1)						**Source: IQB2448-07**					
Aluminum	17100	11	5.4	mg/kg dry	53.9	15000	3896	75-125	2	20	*MHA*
Boron	53.7	5.4	1.1	mg/kg dry	53.9	3.1	94	75-125	5	20	
Lithium	84.2	6.8	4.1	mg/kg dry	53.9	29	102	75-125	1	20	
Potassium	4160	54	20	mg/kg dry	539	3500	122	75-125	1	20	
Sodium	684	54	26	mg/kg dry	539	180	94	75-125	0	20	
Zirconium	39.4	27	1.6	mg/kg dry	53.9	ND	73	75-125	5	20	*M2*

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Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB2448

Sampled: 02/21/07
Received: 02/22/07

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B23117 Extracted: 02/23/07											
Duplicate Analyzed: 02/23/2007 (7B23117-DUP1)						**Source: IQB2448-01**					
pH	6.46	NA	0.00	pH Units		6.49			1	5	
Duplicate Analyzed: 02/23/2007 (7B23117-DUP2)						**Source: IQB2449-01**					
pH	9.56	NA	0.00	pH Units		9.51			1	5	
Batch: 7C01145 Extracted: 03/01/07											
Blank Analyzed: 03/02/2007 (7C01145-BLK1)											
Percent Solids	ND	0.10	0.10	%							
Duplicate Analyzed: 03/02/2007 (7C01145-DUP1)						**Source: IQC0100-01**					
Percent Solids	4.20	0.10	0.10	%		4.2			0	20	

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DATA QUALIFIERS AND DEFINITIONS

B	Analyte was detected in the associated Method Blank.
J	Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
M2	The MS and/or MSD were below the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
MHA	Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

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Certification Summary

TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
EPA 160.3 MOD	Soil	N/A	N/A
EPA 6010B	Soil	X	X
EPA 6020	Soil	X	X
EPA 9045C	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

Weck Laboratories, Inc

14859 E. Clark Avenue - City of Industry, CA 91745

Analysis Performed: Mercury-7471 (dry wt)

Samples: IQB2448-01, IQB2448-03, IQB2448-05, IQB2448-07, IQB2448-09

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Analytical Laboratory Services - Since 1964

14859 E. Clark Ave., Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634
info@wecklabs.com www.wecklabs.com

CERTIFICATE OF ANALYSIS

Client: TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine, CA 92614
Attention: Michele Chamberlin

Phone: (949) 261-1022
Fax: (949) 260-3297

Report Date: 03/12/07 12:09
Received Date: 02/23/07 08:15
Turn Around: Normal

Work Order #: 7022339

Client Project: IQB2448

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Michele Chamberlin :

Enclosed are the results of analyses for samples received 02/23/07 08:15 with the Chain of Custody document. The samples were received in good condition, at 6.0 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Reviewed by:

Hai Van Nguyen For Taylor Maligmat
Project Manager

Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7022339
Project ID: IQB2448

Date Received: 02/23/07 08:15
Date Reported: 03/12/07 12:09

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Laboratory	Matrix	Date Sampled
IQB2448-01	client		7022339-01	Solid	02/21/07 09:15
IQB2448-03	client		7022339-02	Solid	02/21/07 11:00
IQB2448-05	client		7022339-03	Solid	02/21/07 12:30
IQB2448-07	client		7022339-04	Solid	02/21/07 13:05
IQB2448-09	client		7022339-05	Solid	02/21/07 13:40

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QUALITY CONTROL SECTION

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Date Reported: 03/12/07 12:09

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch W7C0195 - General Preparation										
Duplicate (W7C0195-DUP1)		**Source: 7022339-03**		Analyzed: 03/08/07						
% Solids	83.4	0.100	% by Weight		84.0			0.717	20	

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Report ID: 7022339
Project ID: IQB2448

Date Received: 02/23/07 08:15
Date Reported: 03/12/07 12:09

Metals (Non-Aqueous) by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch W7B1093 - EPA 7471A										
Blank (W7B1093-BLK1)				Analyzed: 03/10/07						
Mercury, Total	0.00400	0.010	mg/kg wet							J
LCS (W7B1093-BS1)				Analyzed: 03/10/07						
Mercury, Total	0.0842	0.010	mg/kg wet	0.0833		101	80-120			
Matrix Spike (W7B1093-MS1)	**Source: 7022607-01**			Analyzed: 03/10/07						
Mercury, Total	0.139	0.012	mg/kg dry	0.0992	0.039	101	70-130			
Matrix Spike Dup (W7B1093-MSD1)	**Source: 7022607-01**			Analyzed: 03/10/07						
Mercury, Total	0.165	0.012	mg/kg dry	0.0992	0.039	127	70-130	17.1	25	

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Irvine CA, 92614

Report ID: 7022339
Project ID: IQB2448

Date Received: 02/23/07 08:15
Date Reported: 03/12/07 12:09

Notes and Definitions

J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

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BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070222_00

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:	
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:			
Report to:	Lisa Tucker	Project Number:	1891264				
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan				
	Suite 300	PM Phone #:	(626) 568-6897				
	San Diego	Field Contact:					
	CA	Field Contact #:					
	92123	Lab Name:	Test America, Inc.				
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin				
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100				
			Irvine, CA 92606				
		Lab Phone:	(949) 261-1022				

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Dioxin by 1613B - Soil	Metals 7471A Soil Mercury	PCB by SW8082 - Soil	Perchlorate 314 Soil DI-WET	pH by SW9045C - Soil	Comments
FSBS0006S02	Soil	2/22/2007	8:45	3	H		H	EH	H	10	Hold all analysis except for pH. S(2), P(1)
FSBS0005S02	Soil	2/22/2007	9:45	3	H		H	EH	H	10	Hold all analysis except for pH. S(2), P(1)
FSBS0002S01	Soil	2/22/2007	10:40	2		10				10	
FSBS0010S01	Soil	2/22/2007	11:30	1					10		
FSBS0003S01	Soil	2/22/2007	11:35	1	10		10	10		10	
FSBS0003S02	Soil	2/22/2007	11:39	1	H		H	EH		10	Hold all analysis except for pH
FSBS0008S01	Soil	2/22/2007	11:52	1					10		
FSBS0008S02	Soil	2/22/2007	12:02	1					10		
FSBS0002S02	Soil	2/22/2007	12:20	1		H				H	Hold all analysis.

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract_Hold

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
[signature]	2/23/2007	[signature]	2/23/07				
Company: MWH	Time: 1255	Company: TAI	Time: 1255	Company:	Time:	Company:	Time:

Comments: 2.5/2°

Geotracker EDF ☐

Data Validation Package ☑ Level IV

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070222_00

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:	
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:			
Report to:	Lisa Tucker	Project Number:	1891264				
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan				
	Suite 300	PM Phone #:	(626) 568-6897				
	San Diego	Field Contact:					
	CA	Field Contact #:					
	92123	Lab Name:	Test America, Inc.				
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin				
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100				
			Irvine, CA 92606				
		Lab Phone:	(949) 261-1022				

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Dioxin by 1613B - Soil	Metals 7471A Soil Mercury	PCB by SW8082 - Soil	Perchlorate 314 Soil DI-WET	pH by SW9045C - Soil	Comments
FSBS0009S01	Soil	2/22/2007	12:37	1					10		
FSBS0009S02	Soil	2/22/2007	12:43	1					10		

Requested Analyses

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract Hold

HE 2-23-07
1600

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/23/2007		2/23/07				
Company: MWH	Time: 1255	Company: TAI	Time: 1255	Company:	Time:	Company:	Time:

Comments: 2.5/2

Geotracker EDF ☐

Data Validation Package ☑ Level IV

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070222_00

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:	
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:			
Report to:	Lisa Tucker	Project Number:	1891264				
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan				
	Suite 300	PM Phone #:	(626) 568-6897				
	San Diego	Field Contact:					
	CA	Field Contact #:					
	92123	Lab Name:	Test America, Inc.				
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin				
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100				
			Irvine, CA 92606				
		Lab Phone:	(949) 261-1022				

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Dioxin by 1613B - Soil	Metals 7471A Soil Mercury	PCB by SW8082 - Soil	Perchlorate 314 Soil DI-MET	pH by SW9045C - Soil	Comments
FSBS0006S02	Soil	2/22/2007	8:45	3	H		H	EH	H	10	Hold all analysis except for pH. S(2), P(1)
FSBS0005S02	Soil	2/22/2007	9:45	3	H		H	EH	H	10	Hold all analysis except for pH. S(2), P(1)
FSBS0002S01	Soil	2/22/2007	10:40	2		10					
FSBS0010S01	Soil	2/22/2007	11:30	1					10		
FSBS0003S01	Soil	2/22/2007	11:35	1	10		10	10		10	
FSBS0003S02	Soil	2/22/2007	11:39	1	H		H	EH		10	Hold all analysis except for pH
FSBS0008S01	Soil	2/22/2007	11:52	1					10		
FSBS0008S02	Soil	2/22/2007	12:02	1					10		
FSBS0002S02	Soil	2/22/2007	12:20	1		H				H	Hold all analysis.

Requested Analyses

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract_Hold

1. Relinquished by:	Date:	2, Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
Tel Souza	2/23/2007		2/23/07				
Company: MWH	Time: 1255	Company: TAI	Time: 1255	Company:	Time:	Company:	Time:

Comments: 2.5/2°

Geotracker EDF ☐

Data Validation Package ☑ Level IV

TestAmerica
ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project: SSFL Group 8 - DOE
1891264

Sampled: 02/22/07
Received: 02/23/07
Revised: 03/19/07 12:16

NELAP #01108CA California ELAP#1197 CSDLAC #10256

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 3 pages, are included and are an integral part of this report.
This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT: Samples were received intact, at 2°C, on ice and with chain of custody documentation.

HOLDING TIMES: All samples were analyzed within prescribed holding times and/or in accordance with the TestAmerica Sample Acceptance Policy unless otherwise noted in the report.

PRESERVATION: Samples requiring preservation were verified prior to sample analysis.

QA/QC CRITERIA: All analyses met method criteria, except as noted in the report with data qualifiers.

COMMENTS: Results that fall between the MDL and RL are 'J' flagged.

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

ADDITIONAL INFORMATION: Enclosed are complete final results. The results for Mercury and EPA 1613 Dioxin's have been added. This report was revised to change the pH value from 8.35 to 8.32 for IQB2577-06. A transcription error from the logbook to the computer system had occured.

LABORATORY ID	CLIENT ID	MATRIX
IQB2577-01	FSBS0006S02	Soil
IQB2577-02	FSBS0005S02	Soil
IQB2577-03	FSBS0002S01	Soil
IQB2577-04	FSBS0010S01	Soil
IQB2577-05	FSBS0003S01	Soil
IQB2577-06	FSBS0003S02	Soil
IQB2577-07	FSBS0008S01	Soil

TestAmerica - Irvine, CA
Nicholas Marz For Michele Chamberlin
Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

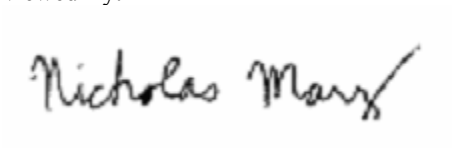
MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB2577

Sampled: 02/22/07
Received: 02/23/07

LABORATORY ID	CLIENT ID	MATRIX
IQB2577-08	FSBS0008S02	Soil
IQB2577-10	FSBS0009S01	Soil
IQB2577-11	FSBS0009S02	Soil

Reviewed By:



TestAmerica - Irvine, CA
Nicholas Marz For Michele Chamberlin
Project Manager

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ANALYTICAL TESTING CORPORATION
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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB2577

Sampled: 02/22/07
Received: 02/23/07

SHORT HOLD TIME DETAIL REPORT

	Hold Time (in days)	Date/Time Sampled	Date/Time Received	Date/Time Extracted	Date/Time Analyzed
Sample ID: FSBS0006S02 (IQB2577-01) - Soil					
EPA 9045C	1	02/22/2007 08:45	02/23/2007 12:55	02/24/2007 08:55	02/24/2007 10:55
Sample ID: FSBS0005S02 (IQB2577-02) - Soil					
EPA 9045C	1	02/22/2007 09:45	02/23/2007 12:55	02/24/2007 08:55	02/24/2007 10:55
Sample ID: FSBS0003S01 (IQB2577-05) - Soil					
EPA 9045C	1	02/22/2007 11:35	02/23/2007 12:55	02/24/2007 08:55	02/24/2007 10:55
Sample ID: FSBS0003S02 (IQB2577-06) - Soil					
EPA 9045C	1	02/22/2007 11:39	02/23/2007 12:55	02/24/2007 08:55	02/24/2007 10:55

TestAmerica - Irvine, CA
Nicholas Marz For Michele Chamberlin
Project Manager

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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQB2577

Sampled: 02/22/07
Received: 02/23/07

METHOD BLANK/QC DATA

POLYCHLORINATED BIPHENYLS (EPA 3545/8082)

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B27094 Extracted: 02/27/07											
Blank Analyzed: 03/01/2007 (7B27094-BLK1)											
Aroclor 1016	ND	50	15	ug/kg wet							
Aroclor 1221	ND	50	15	ug/kg wet							
Aroclor 1232	ND	50	10	ug/kg wet							
Aroclor 1242	ND	50	10	ug/kg wet							
Aroclor 1248	ND	50	10	ug/kg wet							
Aroclor 1254	ND	50	10	ug/kg wet							
Aroclor 1260	ND	50	10	ug/kg wet							
Surrogate: Decachlorobiphenyl	*34.1*			*ug/kg wet*	*33.3*		*102*	*45-120*			
LCS Analyzed: 03/01/2007 (7B27094-BS1)											
Aroclor 1016	285	50	15	ug/kg wet	267		107	65-115			
Aroclor 1260	296	50	10	ug/kg wet	267		111	65-115			
Surrogate: Decachlorobiphenyl	*32.4*			*ug/kg wet*	*33.3*		*97*	*45-120*			
Matrix Spike Analyzed: 03/01/2007 (7B27094-MS1)						**Source: IQB2309-04**					
Aroclor 1016	323	58	17	ug/kg dry	308	ND	105	50-120			
Aroclor 1260	328	58	12	ug/kg dry	308	ND	106	50-125			
Surrogate: Decachlorobiphenyl	*36.5*			*ug/kg dry*	*38.5*		*95*	*45-120*			
Matrix Spike Dup Analyzed: 03/01/2007 (7B27094-MSD1)						**Source: IQB2309-04**					
Aroclor 1016	329	58	17	ug/kg dry	308	ND	107	50-120	2	30	
Aroclor 1260	331	58	12	ug/kg dry	308	ND	107	50-125	1	30	
Surrogate: Decachlorobiphenyl	*37.3*			*ug/kg dry*	*38.5*		*97*	*45-120*			

TestAmerica - Irvine, CA
Nicholas Marz For Michele Chamberlin
Project Manager

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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB2577

Sampled: 02/22/07
Received: 02/23/07

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7B24061 Extracted: 02/24/07											
Duplicate Analyzed: 02/24/2007 (7B24061-DUP1)						**Source: IQB2577-01**					
pH	7.89	NA	N/A	pH Units		7.93			1	5	
Batch: 7C01138 Extracted: 03/01/07											
Blank Analyzed: 03/07/2007 (7C01138-BLK1)											
Perchlorate	ND	4.0	0.80	ug/l							
LCS Analyzed: 03/07/2007 (7C01138-BS1)											
Perchlorate	50.8	4.0	0.80	ug/l	50.0		102	85-115			
Matrix Spike Analyzed: 03/07/2007 (7C01138-MS1)						**Source: IQB2577-10**					
Perchlorate	50.1	4.0	0.80	ug/l	50.0	ND	100	80-120			
Matrix Spike Dup Analyzed: 03/07/2007 (7C01138-MSD1)						**Source: IQB2577-10**					
Perchlorate	51.3	4.0	0.80	ug/l	50.0	ND	103	80-120	2	20	
Batch: 7C01145 Extracted: 03/01/07											
Blank Analyzed: 03/02/2007 (7C01145-BLK1)											
Percent Solids	ND	0.10	0.10	%							
Duplicate Analyzed: 03/02/2007 (7C01145-DUP1)						**Source: IQC0100-01**					
Percent Solids	4.20	0.10	0.10	%		4.2			0	20	

TestAmerica - Irvine, CA
Nicholas Marz For Michele Chamberlin
Project Manager

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9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB2577

Sampled: 02/22/07
Received: 02/23/07

DATA QUALIFIERS AND DEFINITIONS

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

RPD Relative Percent Difference

TestAmerica - Irvine, CA
Nicholas Marz For Michele Chamberlin
Project Manager

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Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQB2577

Sampled: 02/22/07
Received: 02/23/07

Certification Summary

TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
EPA 160.3 MOD	Soil	N/A	N/A
EPA 314.0 DI-RFI	Soil		
EPA 3545/8082	Soil	X	X
EPA 8082	Soil	X	X
EPA 9045C	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

Paradigm Labs - SUB

5500 Business Dr. - Wilmington, NC 28405

Analysis Performed: 1613-Dioxin-HR OUT
Samples: IQB2577-03

Weck Laboratories, Inc

14859 E. Clark Avenue - City of Industry, CA 91745

Analysis Performed: Mercury-7471 (dry wt)
Samples: IQB2577-05

TestAmerica - Irvine, CA
Nicholas Marz For Michele Chamberlin
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

SGS

Laboratory Results

Ms. Michele Chamberlin
Test America
17461 Derian Ave.
Suite 100
Irvine CA 92614

Phone: 949-261-1022
Fax:

Dear Ms. Chamberlin:

Enclosed is a full data package containing the final results for the sample received by Paradigm Analytical Labs, Inc. on February 24, 2007 under your project name "IQB2577". The sample was analyzed by Method 1613 following Paradigm's Standard Operating Procedures and is certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards.

Number of Samples Received:	1
Your Project Reference:	IQB2577
PAL Project Number:	G579-230

We appreciate your business and look forward to working with you again. Please contact me at 910-350-1903 if you have questions or need additional technical support.

Sincerely,

Christopher K. Cornwell
Assistant Director

3/6/07
Date

5500 Business Dr., Wilmington, NC 28405 t (910) 350-1903 f (910) 350-1557 www.sgs.com

Member of the SGS Group

SGS

Case Narrative
SGS Project: **G579-230**
Project Name: **IQB2577**

For Method: 1613

- The submitted sample was accepted into the lab on February 24th, 2007 and extracted on February 28th, 2007 by method 3540C. The sample extract and associated QC extracts were then processed through clean-up by method 3630/3620 and analyzed by HRGC/HRMS for methods 1613.

Craig R. Tronzo 3/12/07
Craig R. Tronzo
Data Validation/QA Officer

Secondary Review

W. Mike Larkins Date
Technical Director

Or Heather Patterson 12 Mar 07
Heather Patterson Date
Director

2

SGS

Table of Contents

Section 1: Cover Letter/Case Narrative

Contains the Table of Contents, a project narrative, the client and PAL project identifiers, the number and type of samples, the methodology used to process the samples, and a summary table of sample results. A listing of current certifications by state, a table of abbreviations and qualifiers and the Toxic Equivalent Factors (TEF) are also supplied.

Section 2: Project Information

Contains the chain-of-custody(s), internal chain-of-custody(s) if applicable, sample login summary, sample receipt checklist, and any other project/client specific information.

Section 3: Sample Analytical Results

Contains results for client samples. Sample results include two pages of summarized analytical data and the associated raw data. The raw data includes a quantitation report from the instrumentation used that lists, ion areas, ratios, retention times, concentrations, and signal-to-noise ratios. It also has the selected ion current profiles (SICPs) for all homolog groups and any manual integrations.

Section 4: Quality Control Analytical Results

Contains results for each analytical workgroup associated with the submitted samples. A workgroup consists of the Lab Method Blank (LMB) and the Ongoing Precision and Recovery sample (OPR). All sample preparation data, including dry weight determinations, extraction logs, clean-up logs and observation notes are also documented. Any other supporting QC data will be documented here upon client request.

Section 5: Initial Calibration

Contains a table summarizing calibration data such as relative response factors, concentrations, and percent relative standard deviation. This section also contains related daily instrument QC information: GC performance data, mass resolution check, windows defining mix, and SICPs for all homolog groups and any manual integrations as well as the injection prep and instrument run logs.

Section 6: Continuing Calibration Data

Contains all daily instrument quality control information. This includes mass resolution checks, a table summarizing the window defining peaks, SICPs for the first and last eluters for each homolog group, SICPs documenting GC performance, a summary quantitation report showing RRFs for the Ccal and Ical, and SICPs for all homolog groups and any manual integrations, injection prep and instrumentation runlogs.

SGS

List of Qualifiers

B Analyte was detected in the Lab Method Blank at a level above the Reporting Limit.

EDL "Estimated Detection Limit"

EMPC "Estimated Maximum Possible Concentration"

ppt Parts-per-trillion (pg/g; ng/L)

V Recovery is below quality control limit. The data has been validated based on a favorable signal-to-noise and detection limit.

Outside quality control limits

* See case narrative

An average uncertainty of 30% can be routinely achieved as concluded from the evaluation of HRGC-HRMS standard operating procedures. The following flags warn the data user of situations where the uncertainty may be greater than stated.

A Amount detected is less than the Lower Calibration Limit.

J Amount detected is between the Method Detection Limit and the Lower Calibration Limit.

E Amount detected is greater than the Upper Calibration Limit.

S The amount of analyte present has saturated the detector. This situation results in an underestimation of the affected analyte(s).

Q Indicates the presence of a quantitative interference. This situation may result in an underestimation of the affected analyte(s).

I Indicates the presence of a qualitative interference that could cause a false positive or an overestimation of the affected analyte(s).

DPE Indicates the presence of a peak in the polychlorinated diphenylether channel that could cause a false positive or an overestimation of the affected analyte(s).

SGS

Toxic Equivalency Factors

Analyte	WHO* 1998	WHO* 2005	International-89	MADEP†
2,3,7,8-TCDD	1	1	1	1
1,2,3,7,8-PeCDD	1	1	0.5	0.5
1,2,3,4,7,8-HxCDD	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDD	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDD	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDD	0.01	0.01	0.01	0.1
OCDD	0.0001	0.0003	0.001	0.001
2,3,7,8-TCDF	0.1	0.1	0.1	0.1
1,2,3,7,8-PeCDF	0.05	0.03	0.05	0.5
2,3,4,7,8-PeCDF	0.5	0.3	0.5	0.5
1,2,3,4,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDF	0.1	0.1	0.1	0.1
2,3,4,6,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDF	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDF	0.01	0.01	0.01	0.1
1,2,3,4,7,8,9-HpCDF	0.01	0.01	0.01	0.1
OCDF	0.0001	0.0003	0.001	0.001

* World Health Organization
† Massachusetts Department of Environmental Protection

Method 1613 - Blank Results

LMB

Analytical Data Summary Sheet

Analyte	Amount (pg/g)	EDL (pg/g)	Adj. RL (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.415	1.00			
1,2,3,7,8-PeCDD	ND	0.310	5.00			
1,2,3,4,7,8-HxCDD	ND	0.293	5.00			
1,2,3,6,7,8-HxCDD	ND	0.312	5.00			
1,2,3,7,8,9-HxCDD	ND	0.300	5.00			
1,2,3,4,6,7,8-HpCDD	ND	0.413	5.00			
OCDD	1.55	0.710	10.0	44:08	0.88	A
2,3,7,8-TCDF	0.608	0.366	1.00	30:26	0.84	A
1,2,3,7,8-PeCDF	ND	0.176	5.00			
2,3,4,7,8-PeCDF	ND	0.178	5.00			
1,2,3,4,7,8-HxCDF	ND	0.188	5.00			
1,2,3,6,7,8-HxCDF	ND	0.184	5.00			
2,3,4,6,7,8-HxCDF	ND	0.177	5.00			
1,2,3,7,8,9-HxCDF	ND	0.247	5.00			
1,2,3,4,6,7,8-HpCDF	ND	0.263	5.00			
1,2,3,4,7,8,9-HpCDF	ND	0.386	5.00			
OCDF	ND	0.545	10.0			
Total TCDDs	ND	0.415	1.00			
Total PeCDDs	ND	0.310	5.00			
Total HxCDDs	ND	0.301	5.00			
Total HpCDDs	ND	0.413	5.00			
Total TCDFs	0.608	0.366	1.00			A
Total PeCDFs	ND	0.177	5.00			
Total HxCDFs	ND	0.197	5.00			
Total HpCDFs	ND	0.318	5.00			
WHO-2005 TEQ (ND=0)	0.0613					
WHO-2005 TEQ (ND=½)	1.03					

Laboratory Information

			Sample Information		
			Report Basis:	Dry Weight	
			Matrix:	Soil	
			Weight / Volume:	10.00	Grams
			Solids / Lipids:	100	%
			Original pH :	NA	
			Batch ID:	WG14129	
Sample ID:	LMB14129		Filename:	a02mar07a_2-3	
			Retchk:	a02mar07a-15	
			Begin ConCal:	a02mar07a-15	
Extraction Date:	28-Feb-07				
Analysis Date:	3-Mar-07	0:07	Initial Cal:	m1613-071006e	

Method 1613 - Blank Results

LMB

Analytical Data Summary Sheet

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
$^{13}C_{12}$-2,3,7,8-TCDD	2.00	1.31	65.4	31:09	0.77	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	2.00	1.49	74.7	34:02	1.58	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	2.00	1.42	70.8	36:36	1.27	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	2.00	1.44	72.2	36:41	1.26	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	2.00	1.45	72.4	39:57	1.05	
$^{13}C_{12}$-OCDD	4.00	2.69	67.3	44:08	0.89	
$^{13}C_{12}$-2,3,7,8-TCDF	2.00	1.37	68.3	30:25	0.79	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	2.00	1.65	82.3	33:14	1.57	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	2.00	1.53	76.5	33:51	1.57	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	2.00	1.48	73.9	35:54	0.52	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	2.00	1.54	76.8	35:59	0.53	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	2.00	1.52	76.2	36:29	0.53	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	2.00	1.48	73.9	37:15	0.53	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	2.00	1.47	73.6	38:42	0.45	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	2.00	1.50	75.2	40:36	0.46	
Cleanup Standards						
$^{37}Cl_4$-2,3,7,8-TCDD	0.400	0.266	66.5	31:10	-	
Injection Standards						
$^{13}C_{12}$-1,2,3,4-TCDD	2.00			30:37	0.77	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	2.00			36:56	1.25	

Laboratory Information

Sample ID: LMB14129

Extraction Date: 28-Feb-07

Analysis Date: 03-Mar-07 0:07

Analyzed by: JWO

Date: 03-06-07

Sample Information

Report Basis:	Dry Weight	
Matrix:	Soil	
Weight / Volume:	10.00	Grams
Solids / Lipids:	100	%
Original pH :	NA	
Batch ID:	WG14129	
Filename:	a02mar07a_2-3	
Retchk:	a02mar07a-15	
Begin ConCal:	a02mar07a-15	
Initial Cal:	m1613-071006e	

Reviewed by: DRD

Date: 3/6/07

Analytical Results
for
Ongoing Precision Result (OPR)

Analyte	Spiked	AMT	REC	Range pg/ul		Flag
	pg/ul	pg/ul	%	Lower	Upper	
2,3,7,8-TCDD	10.0	10.5	105	6.70	15.8	
1,2,3,7,8-PeCDD	50.0	51.9	104	35.0	71.0	
1,2,3,4,7,8-HxCDD	50.0	54.2	108	35.0	82.0	
1,2,3,6,7,8-HxCDD	50.0	55.6	111	38.0	67.0	
1,2,3,7,8,9-HxCDD	50.0	53.9	108	32.0	81.0	
1,2,3,4,6,7,8-HpCDD	50.0	52.4	105	35.0	70.0	
OCDD	100	103	103	78.0	144	
2,3,7,8-TCDF	10.0	10.6	106	7.50	15.8	
1,2,3,7,8-PeCDF	50.0	53.7	107	40.0	67.0	
2,3,4,7,8-PeCDF	50.0	52.6	105	34.0	80.0	
1,2,3,4,7,8-HxCDF	50.0	52.4	105	36.0	67.0	
1,2,3,6,7,8-HxCDF	50.0	53.5	107	42.0	65.0	
2,3,4,6,7,8-HxCDF	50.0	52.8	106	35.0	78.0	
1,2,3,7,8,9-HxCDF	50.0	52.2	104	39.0	65.0	
1,2,3,4,6,7,8-HpCDF	50.0	55.6	111	41.0	61.0	
1,2,3,4,7,8,9-HpCDF	50.0	50.5	101	39.0	69.0	
OCDF	100	111	111	63.0	170	

= Outside range limits
* = Ion Ratio Out

QC Information

OPR Lab ID:	OPR14129
Extraction Date:	28-Feb-07
Analysis Date:	02-Mar-07
Method:	1613

Sample Information

Matrix:	Soil

File Information

OPR Filename :	a02mar07a_2-1
Retchk:	a02mar07a-15
Begin ConCal:	a02mar07a-15
Initial Cal:	m1613-071006e

Analytical Results
for
Ongoing Precision Result (OPR)

Labeled Standard	Spiked pg/ul	AMT pg/ul	REC %	Range pg/ul Lower	Range pg/ul Upper	Flag
Extraction Standards						
$^{13}C_{12}$-2,3,7,8-TCDD	100	70.4	70.4	20.0	175	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	100	77.5	77.5	21.0	227	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	100	77.1	77.1	21.0	193	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	100	73.7	73.7	25.0	163	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	100	77.4	77.4	26.0	166	
$^{13}C_{12}$-OCDD	200	145	72.3	26.0	397	
$^{13}C_{12}$-2,3,7,8-TCDF	100	73.9	73.9	22.0	152	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	100	78.7	78.7	21.0	192	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	100	78.8	78.8	13.0	328	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	100	78.2	78.2	19.0	202	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	100	78.3	78.3	21.0	159	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	100	77.4	77.4	22.0	176	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	100	77.5	77.5	17.0	205	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	100	80.9	80.9	21.0	158	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	100	80.8	80.8	20.0	186	
Cleanup Standards						
$^{37}C_{14}$-2,3,7,8-TCDD	20.0	14.7	73.4	6.20	38.2	

Form Version:[OPRv3.474]1613

QC Information

OPR Lab ID:	OPR14129
Extraction Date:	28-Feb-07
Analysis Date:	02-Mar-07
Method:	1613

Sample Information

Matrix:	Soil

File Information

OPR Filename :	a02mar07a_2-1
Retchk:	a02mar07a-15
Begin ConCal:	a02mar07a-15
Initial Cal:	m1613-071006e

Reviewed by: _____ Date Reviewed: 3/4/07

TestAmerica
ANALYTICAL TESTING CORPORATION

SUBCONTRACT ORDER - PROJECT # IQB2577 ✓

SENDING LABORATORY:	RECEIVING LABORATORY:
TestAmerica - Irvine, CA 17461 Derian Avenue. Suite 100 Irvine, CA 92614 Phone: (949) 261-1022 Fax: (949) 260-3297 Project Manager: Michele Chamberlin	Paradigm Labs - SUB 5500 Business Dr. Wilmington, NC 28405 Phone :(910) 350-1903 Fax: (910) 350-1557 Project Location: California

Work Order Comments: Level 4 QC. Boeing EDD, Report to MDL w/ J flags, report in dry weight, 2 week TAT.

Standard TAT is requested unless specific due date is requested => Due Date:_____ Initials:_____

Analysis	Expiration	Comments
Sample ID: IQB2577-03 Soil	**Sampled: 02/22/07 10:40** ✓	
1613-Dioxin-HR OUT	03/08/07 10:40	Sub=Paradigm,17 cngnrs,dry wt(soil), 2 wkTAT,Jflag
Level 4 + EDD-OUT	03/22/07 10:40	Sub to Paradigm, TAT=2 weeks, EDD=Boeing, CD

Containers Supplied:
2 oz jar (IQB2577-03C)

SAMPLE INTEGRITY:

All containers intact: ☐ Yes ☐ No | Sample labels/COC agree: ☐ Yes ☐ No | Samples Received On Ice:: ☒ Yes ☐ No
Custody Seals Present: ☐ Yes ☐ No | Samples Preserved Properly: ☐ Yes ☐ No | Samples Received at (temp): 3.1

Released By	Date	Time	Received By	Date	Time
[signature]	2/23/07		[signature]	2/24/07	10:00

Released By	Date	Time	Received By	Date	Time

Weck Laboratories, Inc.
Analytical Laboratory Services - Since 1964

14859 E. Clark Ave., Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634
info@wecklabs.com www.wecklabs.com

CERTIFICATE OF ANALYSIS

Client: TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine, CA 92614
Attention: Michele Chamberlin

Phone: (949) 261-1022
Fax: (949) 260-3297

Report Date: 03/13/07 09:50
Received Date: 02/26/07 08:00
Turn Around: Normal

Work Order #: 7022607

Client Project: IQB2577

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Michele Chamberlin :

Enclosed are the results of analyses for samples received 02/26/07 08:00 with the Chain of Custody document. The samples were received in good condition, at 2.9 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Reviewed by:
Taylor Maligmat

Taylor Maligmat
Project Manager

Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7022607
Project ID: IQB2577

Date Received: 02/26/07 08:00
Date Reported: 03/13/07 09:50

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Laboratory	Matrix	Date Sampled
IQB2577-05	client		7022607-01	Solid	02/22/07 11:35

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7022607
Project ID: IQB2577

Date Received: 02/26/07 08:00
Date Reported: 03/13/07 09:50

QUALITY CONTROL SECTION

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7022607
Project ID: IQB2577

Date Received: 02/26/07 08:00
Date Reported: 03/13/07 09:50

Conventional Chemistry/Physical Parameters by APHA/EPA/ASTM Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch W7C0195 - General Preparation										
Duplicate (W7C0195-DUP1)		**Source: 7022339-03**		Analyzed: 03/08/07						
% Solids	83.4	0.100	% by Weight		84.0			0.717	20	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7022607
Project ID: IQB2577

Date Received: 02/26/07 08:00
Date Reported: 03/13/07 09:50

Metals (Non-Aqueous) by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch W7B1093 - EPA 7471A										
Blank (W7B1093-BLK1)				Analyzed: 03/10/07						
Mercury, Total	0.00400	0.010	mg/kg wet							J
LCS (W7B1093-BS1)				Analyzed: 03/10/07						
Mercury, Total	0.0842	0.010	mg/kg wet	0.0833		101	80-120			
Matrix Spike (W7B1093-MS1)	**Source: 7022607-01**			Analyzed: 03/10/07						
Mercury, Total	0.139	0.012	mg/kg dry	0.0992	0.039	101	70-130			
Matrix Spike Dup (W7B1093-MSD1)	**Source: 7022607-01**			Analyzed: 03/10/07						
Mercury, Total	0.165	0.012	mg/kg dry	0.0992	0.039	127	70-130	17.1	25	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7022607
Project ID: IQB2577

Date Received: 02/26/07 08:00
Date Reported: 03/13/07 09:50

Notes and Definitions

J	Detected but below the Reporting Limit; therefore, result is an estimated concentration (CLP J-Flag).
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

IQC 2076

ADDITIONAL ANALYSIS REQUEST FORM

Today's Date: 3-19-07 Del Mar Analytical Project Manager: Michele Chamberlain

Request via: ____ telephone ____ chain of custody form ____ fax transmission X E-mail ____ other

Client: MWH - San Diego / Boeing Contact: Lisa Tucker

Project: SSFL Group 8

Date Sampled: _____ Date Received: _____

Status: ____ in progress ____ completed ____ received today ____ received yesterday ____ on hold ____ other

SAMPLE NUMBER	SAMPLE DESCRIPTION	ANALYSIS REQUESTED	SPECIAL REQUIREMENTS
IQB 2448-02	PRBS0003S02	% Solids, Na, ~~Pb~~ (MM 3-19)	
IQB 2448-04	PRBS0002S02	% Solids, Na, Pb	
IQB 2448-06	PRBS0005S02	% Solids, Na	
IQB 2448-08	PRBS0001S02	% Solids, Na	

Add to new work order.

EC 3-20-07 0710

TURNAROUND STATUS: _____ Same Day _____ 24hr _____ 48hr _____ 3days

_____ 5days ____+____ Standard _____ No Rush Charge

Due 3-30

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070221_00

Page: 1 of 2

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:	
Company:	MWH	Sampling Event:	Group B Data Gaps-Soil	Contact #:			
Report to:	Lisa Tucker	Project Number:	1691264	Requested Analyses			Instructions/TAT
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan				Legend: Numerical values for analyses equate to turn around time in days. H - Hold. EH - Extract Hold
	Suite 300	PM Phone #:	(626) 568-6897				
	San Diego	Field Contact:					
	CA	Field Contact #:					
	92123	Lab Name:	Test America, Inc.				
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin				
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100				
			Irvine, CA 92606				
		Lab Phone:	(949) 261-1022				

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Moisture 6010B/6020 Soil Groups II	Mercury 7471A Soil Manual	pH by SW9045C - Soil	METALS 6010B soil SODIUM	METALS 6020 soil LEAD	Comments
PRBS 0003S01	Soil	2/21/2007	9:15	2	10	10	10	10			
PRBS 0003S02	Soil	2/21/2007	9:36	2	~~H~~ 10	H	H	10	10		~~Hold all analysis except for pH~~ ADD Na
PRBS 0002S01	Soil	2/21/2007	11:00	2	10	10	10	10			
PRBS 0002S02	Soil	2/21/2007	11:30	2	~~H~~ 10	H	H	10	10	10	~~Hold all analysis except for pH~~ ADD Na+Pb
PRBS 0005S01	Soil	2/21/2007	12:30	2	10	10	10	10			
PRBS 0005S02	Soil	2/21/2007	12:45	2	~~H~~ 10	H	H	10	10		~~Hold all analysis except for pH~~ ADD Na
PRBS 0001S01	Soil	2/21/2007	13:05	2	10	10	10	10			
PRBS 0001S02	Soil	2/21/2007	13:15	2	~~H~~ 10	H	H	10	10		~~Hold all analysis except for pH~~ ADD Na

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/22/2007		2/22/07		2/22/07		2/22/07
Company: MWH	Time: 1510	Company: ~~TESTAMERICA - IRVINE~~	Time: 1510	Company: TESTAmE	Time: 2030	Company: ~~TESTAmerica Irvine~~	Time: 2027

Comments: 4°C

Geotracker EDF ☐

Data Validation Package ☑ Level IV

HE 2-22-07 2115

All

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070221_00

Customer Information		Project Information		Project Information	
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:	
Report to:	Lisa Tucker	Project Number:	1891264		
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan		
	Suite 300	PM Phone #:	(626) 568-6897		
	San Diego	Field Contact:			
	CA	Field Contact #:			
	92123	Lab Name:	Test America, Inc.		
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin		
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100		
			Irvine, CA 92606		
		Lab Phone:	(949) 261-1022		

Boeing PM:

Requested Analyses

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Metals 6010B/6020 Soil Group 8	Metals 7471A Soil Mercury	pH by SW9045C - Soil
PRBS0004S01	Soil	2/21/2007	13:40	2	10	10	10	10

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract_Hold

Comments

4°C

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
[signature]	2/22/2007	[signature]	02/22/07	[signature]	2/22/07	[signature]	2/22
Company: MWH	**Time:** 1510	**Company:** TESTAMERICA-IRVINE	**Time:** 1510	**Company:** TESTAMERICA	**Time:** 2030	**Company:** TAI	**Time:** 2030

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

TestAmerica
ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project: SSFL Group 8 - DOE
1891264

Sampled: 02/21/07
Received: 03/20/07
Issued: 03/27/07 16:38

NELAP #01108CA California ELAP#1197 CSDLAC #10256

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 2 pages, are included and are an integral part of this report.
This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

LABORATORY ID	CLIENT ID	MATRIX
IQC2076-01	PRBS0003S02	Soil
IQC2076-02	PRBS0002S02	Soil
IQC2076-03	PRBS0005S02	Soil
IQC2076-04	PRBS0001S02	Soil

Reviewed By:

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQC2076

Sampled: 02/21/07
Received: 03/20/07

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7C20108 Extracted: 03/20/07											
Blank Analyzed: 03/20/2007 (7C20108-BLK1)											
Sodium	ND	50	24	mg/kg wet							
LCS Analyzed: 03/20/2007 (7C20108-BS1)											
Sodium	508	50	24	mg/kg wet	500		102	80-120			
Matrix Spike Analyzed: 03/20/2007 (7C20108-MS1)						**Source: IQC2099-01**					
Sodium	781	50	24	mg/kg wet	500	310	94	75-125			
Matrix Spike Dup Analyzed: 03/20/2007 (7C20108-MSD1)						**Source: IQC2099-01**					
Sodium	794	50	24	mg/kg wet	500	310	97	75-125	2	20	
Batch: 7C20121 Extracted: 03/20/07											
Blank Analyzed: 03/21/2007 (7C20121-BLK1)											
Lead	ND	0.50	0.050	mg/kg wet							
LCS Analyzed: 03/21/2007 (7C20121-BS1)											
Lead	47.5	0.50	0.050	mg/kg wet	50.0		95	80-120			
Matrix Spike Analyzed: 03/21/2007 (7C20121-MS1)						**Source: IQC2079-07**					
Lead	261	0.59	0.059	mg/kg dry	58.8	210	87	75-125			*MHA*
Matrix Spike Dup Analyzed: 03/21/2007 (7C20121-MSD1)						**Source: IQC2079-07**					
Lead	332	0.59	0.059	mg/kg dry	58.8	210	207	75-125	24	20	*MHA, R-3*

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQC2076

Sampled: 02/21/07
Received: 03/20/07

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7C20148 Extracted: 03/20/07											
Blank Analyzed: 03/20/2007 (7C20148-BLK1)											
Percent Solids	ND	0.10	0.10	%							
Duplicate Analyzed: 03/20/2007 (7C20148-DUP1)						**Source: IQC2184-01**					
Percent Solids	4.70	0.10	0.10	%		4.7			0	20	

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQC2076

Sampled: 02/21/07
Received: 03/20/07

DATA QUALIFIERS AND DEFINITIONS

MHA Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).

R-3 The RPD exceeded the acceptance limit due to sample matrix effects.

ND Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.

RPD Relative Percent Difference

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQC2076

Sampled: 02/21/07
Received: 03/20/07

Certification Summary

TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
EPA 160.3 MOD	Soil	N/A	N/A
EPA 6010B	Soil	X	X
EPA 6020	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

IQC 2076

ADDITIONAL ANALYSIS REQUEST FORM

Today's Date: 3-19-07 Del Mar Analytical Project Manager: Michele Chamberlain

Request via: ____ telephone ____ chain of custody form ____ fax transmission X E-mail ____ other

Client: MWH - San Diego / Boeing Contact: Lisa Tucker

Project: SSFL Group 8

Date Sampled: _____ Date Received: _____

Status: ____ in progress ____ completed ____ received today ____ received yesterday ____ on hold ____ other

SAMPLE NUMBER	SAMPLE DESCRIPTION	ANALYSIS REQUESTED	SPECIAL REQUIREMENTS
IQB 2448-02	PRBS0003S02	% Solids, Na, ~~Pb~~ (MM 3-19)	
IQB 2448-04	PRBS0002S02	% Solids, Na, Pb	
IQB 2448-06	PRBS0005S02	% Solids, Na	
IQB 2448-08	PRBS0001S02	% Solids, Na	

Add to new work order.

EC 3-20-07 0710

TURNAROUND STATUS: _____ Same Day _____ 24hr _____ 48hr _____ 3days

_____ 5days ____+____ Standard _____ No Rush Charge

Due 3-30

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

IQC2271

ADDITIONAL ANALYSIS REQUEST FORM

Today's Date: 3-21-07 Del Mar Analytical Project Manager: Michele Chamberlin

Request via: ____ telephone ____ chain of custody form ____ fax transmission ____ E-mail ____ other

Client: MWH - San Diego / Boeing Contact: _____

Project: SSFL Group 4

Date Sampled: Various Date Received: _____

Status: ____ in progress ____ completed ____ received today ____ received yesterday ____ on hold ____ other

SAMPLE NUMBER	SAMPLE DESCRIPTION	ANALYSIS REQUESTED	SPECIAL REQUIREMENTS
IQB1487-05	FSBS0066S02	1613-Dioxin	] Pandigm.
IQB1487-10	FSBS0068S01	1613-Dioxin	
IQB1487-08	FSBS0064S02	% solids, Pb	
IQB1487-09	FSBS0064S03	% solids, Pb	
IQB1684-03	FSBS0022S02	% solids, As	
IQB1684-05	FSBS0024S01	% solids, As	
IQB1861-01	FSBS0041S01	% solids, As	
IQB1861-15	FSBS0053S01	% solids, As	
IQB1861-17	FSBS0031S01	% solids, As	
IQB1861-21	FSBS0034S01	% Solids, Na	
IQB1815-04	FSBS0013S01	Mercury	→ Sub to Weck
	Add to new work order		ER 1424

TURNAROUND STATUS: _____Same Day _____24hr _____48hr _____3days

_____ 5days _____Standard _____No Rush Charge

Due 4-3

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070213_03

Page: 1 of 2

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:	
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:			
Report to:	Lisa Tucker	Project Number:	1891264				
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan				
	Suite 300	PM Phone #:	(626) 568-6897				
	San Diego	Field Contact:					
	CA	Field Contact #:					
	92123	Lab Name:	Test America, Inc.				
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin				
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100				
			Irvine, CA 92606				
		Lab Phone:	(949) 261-1022				

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Dioxin by 1613B - Soil	Metals 6010B/6020 Soil Group 8	Metals 7471A Soil Mercury	PCB by SW8082 - Soil	Perchlorate 314 Soil DI-WET	pH by SW9045C - Soil	SVOCs by SW8270C SIM - Soil	TPH by SW8015BM - Soil	VOC 8260B Soil Full	METALS 6020 SOIL LEAD					Instructions/TAT / Comments
																				Legend: Numerical values for analyses equate to turn around time in days H - Hold EH - Extract Hold
FSBS0087S01	Soil	2/13/2007	8:40	2	10	10	10	10	10	10	10									
FSBS0087S02	Soil	2/13/2007	9:08	2	H	H	H	H	EH	H	10									Hold all analysis except for pH
FSBS0086D01	Soil	2/13/2007	9:27	2	10	10	10	10	10	10	10									
FSBS0086S01	Soil	2/13/2007	9:27	2	10	10	10	10	10	10	10									
FSBS0086S02	Soil	2/13/2007	9:55	2	H	~~H~~ 10	H	H	EH	H	10									~~Hold all analysis except for pH~~ DIOXIN OFF-HOLD
FSBS0085S01	Soil	2/13/2007	10:21	1						10										
FSBS0084S01	Soil	2/13/2007	10:55	1						10										EH 213C
FSBS0084S02	Soil	2/13/2007	11:11	1	10					H					10	3/20/07				Hold analysis
FSBS0084S03	Soil	2/13/2007	11:20	1	10					H					10					Hold analysis

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/14/2007		2/14/07		2/14/07		2-14-07
Company: MWH	Time: 1000	Company: TAE	Time: 1000	Company: TAE	Time: 1945	Company:	Time: 1945

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

2°C

499

ORIGINAL

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070213_03

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:	
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:			
Report to:	Lisa Tucker	Project Number:	1891264				
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan				
	Suite 300	PM Phone #:	(626) 568-6897				
	San Diego	Field Contact:					
	CA	Field Contact #:					
	92123	Lab Name:	Test America, Inc.				
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin				
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100				
			Irvine, CA 92606				
		Lab Phone:	(949) 261-1022				

Requested Analyses

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Dioxin by 1613B - Soil	Metals 6010B/6020 Soil Group 8	Metals 7471A Soil Mercury	PCB by SW8082 - Soil	Perchlorate 314 Soil DI-WET	pH by SW9045C - Soil	SVOCs by SW8270C SIM - Soil	TPH by SW8015M - Soil	VOC 8260B Soil Full						Comments
FSBS0008S01	Soil	2/13/2007	12:05	2	H	~~H~~ 10	H	H	EH	H	10		8	3	3/20/07					~~Hold all analysis except for pH~~ DIOXIN OFF HOLD
FSBS0014S01	Soil	2/13/2007	12:45	5	H		H	H	EH	H	10	EH	EH	H						Hold all analysis except for pH
FSBS0018S01	Soil	2/13/2007	13:21	1						10										
FSBS0014S02	Soil	2/13/2007	13:30	5	H		H	H	EH	H	10	EH	EH	H						Hold all analysis except for pH
FSBS0017S01	Soil	2/13/2007	13:50	1						10										
FSBS0016S01	Soil	2/13/2007	13:57	1						H										Hold analysis
FSBS0019S01	Soil	2/13/2007	14:23	1						H										Hold analysis
FSBS0020S01	Soil	2/13/2007	14:28	1						H										Hold analysis

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract, Hold

2°C

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/14/2007		2/14/07		2/14/07		2-14-07
Company: MWH	Time: 1000	Company: TAE	Time: 1000	Company: TAE	Time: 1945	Company:	Time: 1945

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070214_01

Page: 1 of 2

Customer Information		Project Information		Project Information		
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:		
Report to:	Lisa Tucker	Project Number:	1891264			
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan			
	Suite 300	PM Phone #:	(626) 568-6897			
	San Diego	Field Contact:				
	CA	Field Contact #:				
	92123	Lab Name:	Test America, Inc.			
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin			
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100			
			Irvine, CA 92606			
		Lab Phone:	(949) 261-1022			

Requested Analyses

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract_Hold

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Metals 6020 Soil Arsenic	Perchlorate 314 Soil DI-WET	pH by SW9045C - Soil	Comments
FSBS0021S01	Soil	2/14/2007	9:14	1			H		Hold analysis
FSBS0022S01	Soil	2/14/2007	9:20	1			10		
FSBS0022S02	Soil	2/14/2007	9:27	1	10	10	H		~~Hold analysis~~ Add As
FSBS0023S01	Soil	2/14/2007	9:29	1			10	Ens 3/20/07	
FSBS0024S01	Soil	2/14/2007	9:35	1	10	10	H		Hold analysis Add As
FSBS0024S02	Soil	2/14/2007	9:40	1	~~10~~	~~10~~	H	Ens 4/09/07	~~Hold analysis~~ ~~Add As~~ ens
FSBS0025S01	Soil	2/14/2007	9:49	1			H		Hold analysis
FSBS0025S02	Soil	2/14/2007	9:58	1			H		Hold analysis
FSBS0061S01	Soil	2/14/2007	10:35	1			10		
FSBS0061S02	Soil	2/14/2007	10:47	1			H		Hold analysis

EH 210

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/15/2007		2/15/07		2/15/07		2-15-07
Company: MWH	Time: 1445	Company: TEST AMERICA	Time: 1445	Company: TEST AMERICA	Time: 1915	Company:	Time: 1915

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

2.6°C

466

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070214_01

Page: 2 of 2

Customer Information		Project Information		Project Information	
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:	
Report to:	Lisa Tucker	Project Number:	1891264		
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan		
	Suite 300	PM Phone #:	(626) 568-6897		
	San Diego	Field Contact:			
	CA	Field Contact #:			
	92123	Lab Name:	Test America, Inc.		
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin		
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100		
			Irvine, CA 92606		
		Lab Phone:	(949) 261-1022		

Boeing PM:

Requested Analyses

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Metals 6020 Soil Arsenic	Perchlorate 314 Soil DI-WET	pH by SW9045C - Soil	Comments
FSBS0026S01	Soil	2/14/2007	13:15	1			H		Hold analysis
FSBS0027S01	Soil	2/14/2007	13:22	1			10		
FSBS0029S01	Soil	2/14/2007	13:27	1			H		Hold analysis
FSBS0028S01	Soil	2/14/2007	13:31	1			10		
FSBS0030S01	Soil	2/14/2007	13:36	1			H		Hold analysis
FSBS0063S01	Soil	2/14/2007	13:50	1	H	H		10	Hold all analysis except pH
FSBS0015S01	Soil	2/14/2007	14:10	1	10	10		10	

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract .Hold

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
C4 Sarao	2/15/2007		2/15/07		2/15/07		2-15-07
Company: MWH	Time: 1445	Company: TES AMERICA	Time: 1445	Company: TES AMERICA	Time: 1920	Company:	Time: 1920

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

2.6C

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070216_00

Page: 1 of 1

Customer Information		Project Information		Project Information	
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:	
Report to:	Lisa Tucker	Project Number:	1891264	Boeing PM:	
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan		
	Suite 300	PM Phone #:	(626) 568-6897		
	San Diego	Field Contact:			
	CA	Field Contact #:			
	92123	Lab Name:	Test America, Inc.		
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin		
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100		
			Irvine, CA 92606		
		Lab Phone:	(949) 261-1022		

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Metals 6010B/6020 Soil Group 8	Metals 7471A Soil Mercury	PCB by SW8082 - Soil	Perchlorate 314 Soil DI-WET	pH by SW9045C - Soil	SVOCs by SW8270C SIM - Soil	TPH by SW8015BM - Soil	VOC 8260B Soil Full	Comments
FSBS0011D01	Soil	2/16/2007	8:36	6	10	10	10	10	10	10	10	10	10	Sleeve(2), Poly(1), Encore(3)
FSBS0011S01	Soil	2/16/2007	8:36	6	5	10	10	10	10	10	10	10	5	Sleeve(2), Poly(1), Encore(3)
FSBS0012S01	Soil	2/16/2007	9:21	13	5	10	10	10	10	10	10	10	5	Sleeve(2), Poly(2), Encore(9). Run MS/MSD.See Note
FSBS0013S01	Soil	2/16/2007	9:46	5	~~H~~ 10	H	~~H~~ 10	EH	H	10	EH	EH	H	S(1), P(1), E(3). ~~Hold all analysis except for pH.~~

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract Hold

& MERGE / OFF-HOLD

ems 3/19/07

HE 2-16-07 1850

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
C. A Sanchez	2-16-07		2/16/07				
Company: MWH	Time: 1750	Company:	Time: 17:50	Company:	Time:	Company:	Time:

Comments: Homogenize all sample sleeves of FSBS0012S01 before analysis, run method Spike/Spike Duplicate. Lab leachate for all perchlo analysis.

Geotracker EDF ☐

Data Validation Package ☑ Level IV

intact 16.0/15.5

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070215_02

Customer Information		Project Information	
Site:	SSFL	Client Name:	DOE
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil
Report to:	Lisa Tucker	Project Number:	1891264
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan
	Suite 300	PM Phone #:	(626) 568-6897
	San Diego	Field Contact:	
	CA	Field Contact #:	
	92123	Lab Name:	Test America, Inc.
Email:	boeingedms@ch2m.co m	Lab Contact:	Michele Chamberlin
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100
			Irvine, CA 92606
		Lab Phone:	(949) 261-1022

Project Information

Collector: Shelby Valenzuela — Boeing PM:

Contact #:

Requested Analyses

Sample Name	Matrix	Date	Time	No. of Containers	Perchlorate 314 Soil DI-WET	% SOLIDS - Soil	METALS 6020 SOIL ARSENIC		Comments
FSBS0041S01	Soil	2/15/2007	8:35	1	H	10	10	Eng 3/8/07	~~Hold analysis~~ ADDA
FSBS0042S01	Soil	2/15/2007	8:40	1	H				Hold analysis
FSBS0044S01	Soil	2/15/2007	8:44	1	H				Hold analysis
FSBS0043S01	Soil	2/15/2007	8:51	1	H				Hold analysis
FSBS0045S01	Soil	2/15/2007	8:59	1	H				Hold analysis
FSBS0046S01	Soil	2/15/2007	9:25	1	H				Hold analysis
FSBS0048S01	Soil	2/15/2007	9:30	1	H				Hold analysis
FSBS0050S01	Soil	2/15/2007	9:34	1	H				Hold analysis
FSBS0047S01	Soil	2/15/2007	9:39	1	H				Hold analysis
FSBS0049S01	Soil	2/15/2007	9:44	1	H				Hold analysis

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract Hold

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
C Swao	2/16/2007	BD Queen	2/16/07	BD Queen	2/16/07	Edward N	2/16/07
Company: MWH	Time: 0945	Company: TEST AMERICA	Time: 0943	Company: TEST AMERICA	Time: 1420	Company: TAI	Time: 1920

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

HE 2-16-07

2120

417

BAP INC.

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070215_02

Customer Information		Project Information	
Site:	SSFL	Client Name:	DOE
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil
Report to:	Lisa Tucker	Project Number:	1891264
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan
	Suite 300	PM Phone #:	(626) 568-6897
	San Diego	Field Contact:	
	CA	Field Contact #:	
	92123	Lab Name:	Test America, Inc.
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100
			Irvine, CA 92606
		Lab Phone:	(949) 261-1022

Project Information			
Collector:	Shelby Valenzuela	Boeing PM:	
Contact #:			

Requested Analyses

Sample Name	Matrix	Date	Time	No. of Containers	Perchlorate 314 Soil DI-WET	% solids soil	Metals 6020 soil ARSENIC	Comments
FSBS0062S01	Soil	2/15/2007	10:08	1	10			
FSBS0061S01	Soil	2/15/2007	10:32	1	10			
FSBS0052S01	Soil	2/15/2007	10:35	1	10			
FSBS0055S01	Soil	2/15/2007	10:37	1	H			Hold analysis
FSBS0053S01	Soil	2/15/2007	10:40	1	H	10	10	~~Hold analysis~~ Add As
FSBS0064S01	Soil	2/15/2007	10:44	1	10			
FSBS0031S01	Soil	2/15/2007	13:18	1	H	10	10	~~Hold analysis~~ Add As
FSBS0033S01	Soil	2/15/2007	13:20	1	10			
FSBS0035S01	Soil	2/15/2007	13:24	1	H			Hold analysis
FSBS0032S01	Soil	2/15/2007	13:29	1	10			

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract Hold

due 2/19/07

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
[signature]	2/16/2007	[signature]	2/16/07	[signature]	2/16/07	[signature]	2/16/07
Company: MWH	Time: 0945	Company: TESTAMERICA	Time: 0945	Company: TES America	Time: 1220	Company: TAI	Time: 1920

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

4 / 7

5.5/5.0

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070215_02

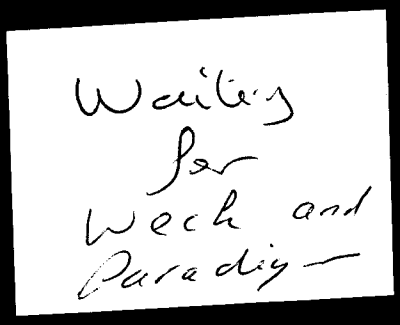
Page: 3 of 3

Customer Information		Project Information	
Site:	SSFL	Client Name:	DOE
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil
Report to:	Lisa Tucker	Project Number:	1891264
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan
	Suite 300	PM Phone #:	(626) 568-6897
	San Diego	Field Contact:	
	CA	Field Contact #:	
	92123	Lab Name:	Test America, Inc.
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100
			Irvine, CA 92606
		Lab Phone:	(949) 261-1022

Project Information			Boeing PM:
Collector:	Shelby Valenzuela		
Contact #:			

Requested Analyses

| Sample Name | Matrix | Date | Time | No. of Containers | Perchlorate 314 Soil DI-MET | % SOLIDS SOIL | METALS 6010B SOIL SODIUM | | |


Waiting
for
Week and
Paradigm

TestAmerica
ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project: SSFL Group 8 - DOE
1891264

Sampled: 02/13/07-02/16/07
Received: 03/21/07
Issued: 04/05/07 16:43

NELAP #01108CA California ELAP#1197 CSDLAC #10256

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 10 pages, are included and are an integral part of this report.
This entire report was reviewed and approved for release.

CASE NARRATIVE

SAMPLE RECEIPT:	Samples were received intact, at 2°C, on ice and with chain of custody documentation.
HOLDING TIMES:	Not all holding times were met. Results were qualified where the sample analysis did not occur within method specified holding time requirements.
PRESERVATION:	Samples requiring preservation were verified prior to sample analysis.
QA/QC CRITERIA:	All analyses met method criteria, except as noted in the report with data qualifiers.
COMMENTS:	Results that fall between the MDL and RL are 'J' flagged.
SUBCONTRACTED:	Refer to the last page for specific subcontract laboratory information included in this report.
ADDITIONAL INFORMATION:	Enclosed are complete final results. The results for Dioxin's and Mercury were added.

LABORATORY ID	CLIENT ID	MATRIX
IQC2271-01	FSBS0066S02	Soil
IQC2271-02	FSBS0064S02	Soil
IQC2271-03	FSBS0064S03	Soil
IQC2271-04	FSBS0068S01	Soil
IQC2271-05	FSBS0022S02	Soil
IQC2271-06	FSBS0024S01	Soil
IQC2271-07	FSBS0041S01	Soil
IQC2271-08	FSBS0053S01	Soil
IQC2271-09	FSBS0031S01	Soil
IQC2271-10	FSBS0034S01	Soil

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION

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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQC2271

Sampled: 02/13/07-02/16/07
Received: 03/21/07

LABORATORY ID	CLIENT ID	MATRIX
IQC2271-11	FSBS0013S01	Soil

Reviewed By:

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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ANALYTICAL TESTING CORPORATION
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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQC2271

Sampled: 02/13/07-02/16/07
Received: 03/21/07

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7C23088 Extracted: 03/23/07											
Blank Analyzed: 03/23/2007 (7C23088-BLK1)											
Arsenic	ND	0.50	0.25	mg/kg wet							
Lead	ND	0.50	0.050	mg/kg wet							
LCS Analyzed: 03/23/2007 (7C23088-BS1)											
Arsenic	44.3	0.50	0.25	mg/kg wet	50.0		89	80-120			
Lead	47.8	0.50	0.050	mg/kg wet	50.0		96	80-120			
Matrix Spike Analyzed: 03/23/2007 (7C23088-MS1)						**Source: IQC2271-02**					
Arsenic	46.5	0.55	0.27	mg/kg dry	54.7	3.0	80	75-125			
Lead	57.6	0.55	0.055	mg/kg dry	54.7	5.9	95	75-125			
Matrix Spike Dup Analyzed: 03/23/2007 (7C23088-MSD1)						**Source: IQC2271-02**					
Arsenic	46.2	0.55	0.27	mg/kg dry	54.7	3.0	79	75-125	1	20	
Lead	57.1	0.55	0.055	mg/kg dry	54.7	5.9	94	75-125	1	20	
Batch: 7C23117 Extracted: 03/23/07											
Blank Analyzed: 03/24/2007 (7C23117-BLK1)											
Sodium	ND	50	24	mg/kg wet							
LCS Analyzed: 03/24/2007 (7C23117-BS1)											
Sodium	524	50	24	mg/kg wet	500		105	80-120			
Matrix Spike Analyzed: 03/27/2007 (7C23117-MS1)						**Source: IQC2330-01**					
Sodium	1680	99	47	mg/kg wet	493	1200	97	75-125			
Matrix Spike Dup Analyzed: 03/27/2007 (7C23117-MSD1)						**Source: IQC2330-01**					
Sodium	1730	99	47	mg/kg wet	493	1200	108	75-125	3	20	

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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ANALYTICAL TESTING CORPORATION
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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQC2271

Sampled: 02/13/07-02/16/07
Received: 03/21/07

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7C21154 Extracted: 03/21/07											
Blank Analyzed: 03/22/2007 (7C21154-BLK1)											
Percent Solids	ND	0.10	0.10	%							
Duplicate Analyzed: 03/22/2007 (7C21154-DUP1)						**Source: IQC1748-01**					
Percent Solids	93.4	0.10	0.10	%		94			1	20	
Batch: 7C27147 Extracted: 03/27/07											
Blank Analyzed: 03/28/2007 (7C27147-BLK1)											
Percent Solids	ND	0.10	0.10	%							
Duplicate Analyzed: 03/28/2007 (7C27147-DUP1)						**Source: IQC2841-01**					
Percent Solids	4.60	0.10	0.10	%		4.6			0	20	

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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ANALYTICAL TESTING CORPORATION
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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQC2271

Sampled: 02/13/07-02/16/07
Received: 03/21/07

DATA QUALIFIERS AND DEFINITIONS

H-1	Sample analysis performed past the method-specified holding time per client's approval.
J	Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQC2271

Sampled: 02/13/07-02/16/07
Received: 03/21/07

Certification Summary

TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
EPA 160.3 MOD	Soil	N/A	N/A
EPA 6010B	Soil	X	X
EPA 6020	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

Paradigm Labs - SUB
5500 Business Dr. - Wilmington, NC 28405
Analysis Performed: 1613-Dioxin-HR OUT
Samples: IQC2271-01, IQC2271-04

Weck Laboratories, Inc
14859 E. Clark Avenue - City of Industry, CA 91745
Analysis Performed: Mercury-7471 (dry wt)
Samples: IQC2271-11

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

TestAmerica
ANALYTICAL TESTING CORPORATION

7032218

SUBCONTRACT ORDER - PROJECT # IQC2271

SENDING LABORATORY:
TestAmerica - Irvine, CA
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Michele Chamberlin

RECEIVING LABORATORY:
Weck Laboratories, Inc
14859 E. Clark Avenue
City of Industry, CA 91745
Phone :(626) 336-2139
Fax: (626) 336-2634

Project Location: California

Work Order Comments: Level 4 QC. Boeing EDD, Report to MDL w/ J flags, report in dry weight, 2 week TAT.

Standard TAT is requested unless specific due date is requested => Due Date: 4/3/07 **Initials:**

Analysis	Expiration	Comments
Sample ID: IQC2271-11 Soil	**Sampled: 02/16/07 09:46**	**add on IQB1815-04, 3/21/07**
Mercury-7471 (dry wt)-OUT	03/16/07 09:46	J & B flag, sub to Weck, 9 day TAT
Containers Supplied:		
500 ml Poly (IQC2271-11A)		

SAMPLE INTEGRITY:

All containers intact: ☐ Yes ☐ No
Custody Seals Present: ☐ Yes ☐ No
Sample labels/COC agree: ☐ Yes ☐ No
Samples Preserved Properly: ☐ Yes ☐ No
Samples Received On Ice:: ☐ Yes ☐ No
Samples Received at (temp): _____

Released By	Date	Time	Received By	Date	Time
[signature]	3/22/07	0800	[signature]	3/22/07	0800
[signature]	3/22/07	1230	[signature]	3/22/07	12:30 2.3°C

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

IQC2271

ADDITIONAL ANALYSIS REQUEST FORM

Today's Date: 3-21-07 Del Mar Analytical Project Manager: Michele Chamberlin

Request via: ____ telephone ____ chain of custody form ____ fax transmission ____ E-mail ____ other

Client: MWH - San Diego / Boeing Contact: _____

Project: SSFL Group 4

Date Sampled: Various Date Received: _____

Status: ____ in progress ____ completed ____ received today ____ received yesterday ____ on hold ____ other

SAMPLE NUMBER	SAMPLE DESCRIPTION	ANALYSIS REQUESTED	SPECIAL REQUIREMENTS
IQB1487-05	FSBS0066S02	1613-Dioxin	] Pandigm.
IQB1487-10	FSBS0068S01	1613-Dioxin	
IQB1487-08	FSBS0064S02	% solids, Pb	
IQB1487-09	FSBS0064S03	% solids, Pb	
IQB1684-03	FSBS0022S02	% solids, As	
IQB1684-05	FSBS0024S01	% solids, As	
IQB1861-01	FSBS0041S01	% solids, As	
IQB1861-15	FSBS0053S01	% solids, As	
IQB1861-17	FSBS0031S01	% solids, As	
IQB1861-21	FSBS0034S01	% Solids, Na	
IQB1815-04	FSBS0013S01	Mercury	→ Sub to Weck
	Add to new work order		ER 1424

TURNAROUND STATUS: _____Same Day _____24hr _____48hr _____3days

_____ 5days _____Standard _____No Rush Charge

Due 4-3

SGS

Laboratory Results

Ms. Michele Chamberlin
Test America
17461 Derian Ave.
Suite 100
Irvine CA 92614

Phone: 949-261-1022
Fax:

Dear Ms. Chamberlin:

Enclosed is a full data package containing the final results for samples received by SGS Environmental Services, Inc. on March 22, 2007 under your project name "IQC2271". The samples were analyzed by Method 1613 following Paradigm's Standard Operating Procedures and are certified to meet the requirements of the National Environmental Laboratory Accreditation Conference Standards.

Number of Samples Received:	2
Your Project Reference:	IQC2271
PAL Project Number:	G579-241

We appreciate your business and look forward to working with you again. Please contact me at 910-350-1903 if you have questions or need additional technical support.

Sincerely,

Christopher K. Cornwell
Assistant Director

4/4/07
Date

5500 Business Dr., Wilmington, NC 28405 t (910) 350-1903 f (910) 350-1557 www.sgs.com

DG136.033007.7

Member of the SGS Group

SGS

Case Narrative
SGS Project: **G579-241**
Project Name: **IQC2271**

For Method: 1613

- The submitted samples were accepted into the lab on March 22nd, 2007 and extracted on March 26th, 2007 by method 3520C. The sample extracts and associated QC extracts were then processed through clean-up by method 3630/3620 and analyzed by GC/MS for methods 1613.

Craig R. Tronzo 4/4/07
Craig R. Tronzo Date
Data Validation/QA Officer

Secondary Review

W. Mike Larkins Date
Technical Director

Or Heather Patterson 04Apr07
Heather Patterson Date
Director

2

SGS

Table of Contents

Section 1: Cover Letter/Case Narrative

Contains the Table of Contents, a project narrative, the client and PAL project identifiers, the number and type of samples, the methodology used to process the samples, and a summary table of sample results. A listing of current certifications by state, a table of abbreviations and qualifiers and the Toxic Equivalent Factors (TEF) are also supplied.

Section 2: Project Information

Contains the chain-of-custody(s), internal chain-of-custody(s) if applicable, sample login summary, sample receipt checklist, and any other project/client specific information.

Section 3: Sample Analytical Results

Contains results for client samples. Sample results include two pages of summarized analytical data and the associated raw data. The raw data includes a quantitation report from the instrumentation used that lists, ion areas, ratios, retention times, concentrations, and signal-to-noise ratios. It also has the selected ion current profiles (SICPs) for all homolog groups and any manual integrations.

Section 4: Quality Control Analytical Results

Contains results for each analytical workgroup associated with the submitted samples. A workgroup consists of the Lab Method Blank (LMB) and the Ongoing Precision and Recovery sample (OPR). All sample preparation data, including dry weight determinations, extraction logs, clean-up logs and observation notes are also documented. Any other supporting QC data will be documented here upon client request.

Section 5: Initial Calibration

Contains a table summarizing calibration data such as relative response factors, concentrations, and percent relative standard deviation. This section also contains related daily instrument QC information: GC performance data, mass resolution check, windows defining mix, and SICPs for all homolog groups and any manual integrations as well as the injection prep and instrument run logs.

Section 6: Continuing Calibration Data

Contains all daily instrument quality control information. This includes mass resolution checks, a table summarizing the window defining peaks, SICPs for the first and last eluters for each homolog group, SICPs documenting GC performance, a summary quantitation report showing RRFs for the Ccal and Ical, and SICPs for all homolog groups and any manual integrations, injection prep and instrumentation runlogs.

SGS

List of Qualifiers

B Analyte was detected in the Lab Method Blank at a level above the Reporting Limit.

EDL "Estimated Detection Limit"

EMPC "Estimated Maximum Possible Concentration"

ppt Parts-per-trillion (pg/g; ng/L)

V Recovery is below quality control limit. The data has been validated based on a favorable signal-to-noise and detection limit.

Outside quality control limits

* Indicates that the ion-ratio fails high or low; analyte reported as an EMPC

An average uncertainty of 30% can be routinely achieved as concluded from the evaluation of HRGC-HRMS standard operating procedures. The following flags warn the data user of situations where the uncertainty may be greater than stated.

A Amount detected is less than the Lower Calibration Limit.

J Amount detected is between the Method Detection Limit and the Lower Calibration Limit.

E Amount detected is greater than the Upper Calibration Limit.

S The amount of analyte present has saturated the detector. This situation results in an underestimation of the affected analyte(s).

Q Indicates the presence of a quantitative interference. This situation may result in an underestimation of the affected analyte(s).

I Indicates the presence of a qualitative interference that could cause a false positive or an overestimation of the affected analyte(s).

DPE Indicates the presence of a peak in the polychlorinated diphenylether channel that could cause a false positive or an overestimation of the affected analyte(s).

SGS

Toxic Equivalency Factors

Analyte	WHO* 1998	WHO* 2005	International-89	MADEP†
2,3,7,8-TCDD	1	1	1	1
1,2,3,7,8-PeCDD	1	1	0.5	0.5
1,2,3,4,7,8-HxCDD	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDD	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDD	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDD	0.01	0.01	0.01	0.1
OCDD	0.0001	0.0003	0.001	0.001
2,3,7,8-TCDF	0.1	0.1	0.1	0.1
1,2,3,7,8-PeCDF	0.05	0.03	0.05	0.5
2,3,4,7,8-PeCDF	0.5	0.3	0.5	0.5
1,2,3,4,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,6,7,8-HxCDF	0.1	0.1	0.1	0.1
2,3,4,6,7,8-HxCDF	0.1	0.1	0.1	0.1
1,2,3,7,8,9-HxCDF	0.1	0.1	0.1	0.1
1,2,3,4,6,7,8-HpCDF	0.01	0.01	0.01	0.1
1,2,3,4,7,8,9-HpCDF	0.01	0.01	0.01	0.1
OCDF	0.0001	0.0003	0.001	0.001

* World Health Organization
† Massachusetts Department of Environmental Protection

Method 1613--Boeing

LMB

Analytical Data Summary Sheet

Analyte	Amount (pg/g)	EDL (pg/g)	Adj. RL (pg/g)	RT (min.)	Ratio	Qualifier
2,3,7,8-TCDD	ND	0.101	1.00			
1,2,3,7,8-PeCDD	ND	0.105	5.00			
1,2,3,4,7,8-HxCDD	ND	0.131	5.00			
1,2,3,6,7,8-HxCDD	ND	0.140	5.00			
1,2,3,7,8,9-HxCDD	ND	0.134	5.00			
1,2,3,4,6,7,8-HpCDD	0.324	0.306	5.00	40:07	1.05	A
OCDD	1.93	0.608	10.0	44:25	0.88	A
2,3,7,8-TCDF	0.290	0.0958	1.00	30:34	0.86	A
1,2,3,7,8-PeCDF	0.0880	0.0568	5.00	33:19	1.54	A
2,3,4,7,8-PeCDF	0.0840	0.0570	5.00	33:56	1.42	A
1,2,3,4,7,8-HxCDF	ND	0.0960	5.00			
1,2,3,6,7,8-HxCDF	ND	0.0936	5.00			
2,3,4,6,7,8-HxCDF	ND	0.0936	5.00			
1,2,3,7,8,9-HxCDF	ND	0.136	5.00			
1,2,3,4,6,7,8-HpCDF	ND	0.150	5.00			
1,2,3,4,7,8,9-HpCDF	ND	0.233	5.00			
OCDF	ND	0.527	10.0			
Total TCDDs	ND	0.101	1.00			
Total PeCDDs	ND	0.105	5.00			
Total HxCDDs	ND	0.135	5.00			
Total HpCDDs	0.504	0.306	5.00			A
Total TCDFs	0.440	0.0958	1.00			A
Total PeCDFs	0.172	0.0568	5.00			A
Total HxCDFs	ND	0.103	5.00			
Total HpCDFs	ND	0.186	5.00			
WHO-2005 TEQ (ND=0)	0.0607					
WHO-2005 TEQ (ND=½)	0.354					

Laboratory Information

			Sample Information		
			Report Basis:	Dry Weight	
			Matrix:	Soil	
			Weight / Volume:	10.00	Grams
			Solids / Lipids:	100	%
			Original pH :	NA	
			Batch ID:	WG14169	
Sample ID:	LMB14169		Filename:	a31mar07a_6-3	
			Retchk:	a31mar07a_5-13	
			Begin ConCal:	a31mar07a_5-13	
Extraction Date:	26-Mar-07				
Analysis Date:	2-Apr-07	17:20	Initial Cal:	m1613-071006e	

Method 1613 - Blank Results

LMB

Analytical Data Summary Sheet

Labeled Standard	Expected Amount (ng)	Measured Amount (ng)	Percent Recovery (%)	RT (min.)	Ratio	Qualifier
Extraction Standards						
$^{13}C_{12}$-2,3,7,8-TCDD	2.00	1.57	78.6	31:14	0.78	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	2.00	1.54	76.8	34:06	1.58	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	2.00	1.64	81.8	36:42	1.26	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	2.00	1.87	93.4	36:47	1.27	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	2.00	1.48	73.9	40:06	1.06	
$^{13}C_{12}$-OCDD	4.00	2.15	53.6	44:23	0.90	
$^{13}C_{12}$-2,3,7,8-TCDF	2.00	1.62	80.9	30:33	0.79	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	2.00	1.61	80.6	33:19	1.58	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	2.00	1.56	77.8	33:55	1.59	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	2.00	1.70	84.8	36:00	0.52	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	2.00	1.81	90.3	36:06	0.53	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	2.00	1.76	88.2	36:35	0.53	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	2.00	1.65	82.7	37:21	0.53	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	2.00	1.50	75.2	38:52	0.45	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	2.00	1.41	70.4	40:46	0.45	
Cleanup Standards						
$^{37}Cl_4$-2,3,7,8-TCDD	0.400	0.333	83.3	31:15	-	
Injection Standards						
$^{13}C_{12}$-1,2,3,4-TCDD	2.00			30:43	0.80	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDD	2.00			37:02	1.26	

Laboratory Information

Sample ID: LMB14169

Extraction Date: 26-Mar-07

Analysis Date: 02-Apr-07 17:20

Analyzed by: JMD

Date: 04-04-07

Sample Information

Report Basis:	Dry Weight	
Matrix:	Soil	
Weight / Volume:	10.00	Grams
Solids / Lipids:	100	%
Original pH :	NA	
Batch ID:	WG14169	
Filename:	a31mar07a_6-3	
Retchk:	a31mar07a_5-13	
Begin ConCal:	a31mar07a_5-13	
Initial Cal:	m1613-071006e	

Reviewed by: [signature]

Date: 4/4/07

Analytical Results
for
Ongoing Precision Result (OPR)

Analyte	Spiked	AMT	REC	Range pg/ul		Flag
	pg/ul	pg/ul	%	Lower	Upper	
2,3,7,8-TCDD	10.0	10.2	102	6.70	15.8	
1,2,3,7,8-PeCDD	50.0	50.0	100	35.0	71.0	
1,2,3,4,7,8-HxCDD	50.0	53.2	106	35.0	82.0	
1,2,3,6,7,8-HxCDD	50.0	52.9	106	38.0	67.0	
1,2,3,7,8,9-HxCDD	50.0	51.2	102	32.0	81.0	
1,2,3,4,6,7,8-HpCDD	50.0	51.7	103	35.0	70.0	
OCDD	100	98.1	98.1	78.0	144	
2,3,7,8-TCDF	10.0	9.85	98.5	7.50	15.8	
1,2,3,7,8-PeCDF	50.0	52.6	105	40.0	67.0	
2,3,4,7,8-PeCDF	50.0	51.0	102	34.0	80.0	
1,2,3,4,7,8-HxCDF	50.0	52.3	105	36.0	67.0	
1,2,3,6,7,8-HxCDF	50.0	51.1	102	42.0	65.0	
2,3,4,6,7,8-HxCDF	50.0	50.9	102	35.0	78.0	
1,2,3,7,8,9-HxCDF	50.0	51.4	103	39.0	65.0	
1,2,3,4,6,7,8-HpCDF	50.0	52.2	104	41.0	61.0	
1,2,3,4,7,8,9-HpCDF	50.0	50.3	101	39.0	69.0	
OCDF	100	102	102	63.0	170	

= Outside range limits
* = Ion Ratio Out

QC Information

OPR Lab ID:	OPR14169
Extraction Date:	26-Mar-07
Analysis Date:	02-Apr-07
Method:	1613

Sample Information

Matrix:	Soil

File Information

OPR Filename :	a31mar07a_6-1
Retchk:	a31mar07a_5-13
Begin ConCal:	a31mar07a_5-13
Initial Cal:	m1613-071006e

Analytical Results
for
Ongoing Precision Result (OPR)

Labeled Standard	Spiked pg/ul	AMT pg/ul	REC %	Range pg/ul Lower	Range pg/ul Upper	Flag
Extraction Standards						
$^{13}C_{12}$-2,3,7,8-TCDD	100	75.1	75.1	20.0	175	
$^{13}C_{12}$-1,2,3,7,8-PeCDD	100	76.3	76.3	21.0	227	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDD	100	83.1	83.1	21.0	193	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDD	100	86.7	86.7	25.0	163	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDD	100	75.6	75.6	26.0	166	
$^{13}C_{12}$-OCDD	200	110	55.1	26.0	397	
$^{13}C_{12}$-2,3,7,8-TCDF	100	79.6	79.6	22.0	152	
$^{13}C_{12}$-1,2,3,7,8-PeCDF	100	79.1	79.1	21.0	192	
$^{13}C_{12}$-2,3,4,7,8-PeCDF	100	79.0	79.0	13.0	328	
$^{13}C_{12}$-1,2,3,4,7,8-HxCDF	100	85.4	85.4	19.0	202	
$^{13}C_{12}$-1,2,3,6,7,8-HxCDF	100	92.6	92.6	21.0	159	
$^{13}C_{12}$-2,3,4,6,7,8-HxCDF	100	88.5	88.5	22.0	176	
$^{13}C_{12}$-1,2,3,7,8,9-HxCDF	100	83.3	83.3	17.0	205	
$^{13}C_{12}$-1,2,3,4,6,7,8-HpCDF	100	77.2	77.2	21.0	158	
$^{13}C_{12}$-1,2,3,4,7,8,9-HpCDF	100	72.7	72.7	20.0	186	
Cleanup Standards						
$^{37}C_{l4}$-2,3,7,8-TCDD	20.0	16.2	80.8	6.20	38.2	

Form Version:[OPRv3.474]1613

QC Information

OPR Lab ID:	OPR14169
Extraction Date:	26-Mar-07
Analysis Date:	02-Apr-07
Method:	1613

Sample Information

Matrix:	Soil

File Information

OPR Filename :	a31mar07a_6-1
Retchk:	a31mar07a_5-13
Begin ConCal:	a31mar07a_5-13
Initial Cal:	m1613-071006e

Reviewed by: _____ Date Reviewed: 4/4/07

TestAmerica
ANALYTICAL TESTING CORPORATION

G579.241

SUBCONTRACT ORDER - PROJECT # IQC2271 /

SENDING LABORATORY:	RECEIVING LABORATORY:
TestAmerica - Irvine, CA 17461 Derian Avenue. Suite 100 Irvine, CA 92614 Phone: (949) 261-1022 Fax: (949) 260-3297 Project Manager: Michele Chamberlin	Paradigm Labs - SUB 5500 Business Dr. Wilmington, NC 28405 Phone :(910) 350-1903 Fax: (910) 350-1557 Project Location: California

Work Order Comments: Level 4 QC. Boeing EDD, Report to MDL w/ J flags, report in dry weight, 2 week TAT.

Standard TAT is requested unless specific due date is requested => Due Date: 4/3/07 **Initials:**

Analysis	Expiration		Comments
Sample ID: IQC2271-01 Soil	**Sampled: 02/13/07 09:55**	✓	**add on IQB1487-05, 3/21/07**
1613-Dioxin-HR OUT	02/27/07 09:55		Sub=Paradigm,17 cngnrs,dry wt(soil), 2 wkTAT,Jflag
Containers Supplied:			
~~Brass Sleeve~~ (IQC2271-01A)			
500 ml poly			
Sample ID: IQC2271-04 Soil	**Sampled: 02/13/07 12:05**	✓	**add on IQB1487-10, 3/21/07**
1613-Dioxin-HR OUT	02/27/07 12:05		Sub=Paradigm,17 cngnrs,dry wt(soil), 2 wkTAT,Jflag
Containers Supplied:			
~~Brass Sleeve~~ (IQC2271-04A)			
500 ml poly			

SAMPLE INTEGRITY:

All containers intact:	☐ Yes	☐ No	Sample labels/COC agree:	☐ Yes	☐ No	Samples Received On Ice::	☐ Yes ☐ No
Custody Seals Present:	☒ Yes	☐ No	Samples Preserved Properly:	☐ Yes	☐ No	Samples Received at (temp):	2.1°C

Released By	Date	Time	Received By	Date	Time
Edward Ni	3/21/07		Julie Johnson	3/22/07	1000

Weck Laboratories, Inc.
Analytical Laboratory Services - Since 1964

14859 E. Clark Ave., Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634
info@wecklabs.com www.wecklabs.com

CERTIFICATE OF ANALYSIS

Client: TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine, CA 92614
Attention: Michele Chamberlin

Phone: (949) 261-1022
Fax: (949) 260-3297

Report Date: 04/05/07 09:42
Received Date: 03/22/07 12:30
Turn Around: Normal

Work Order #: 7032218

Client Project: IQC2271

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Michele Chamberlin :

Enclosed are the results of analyses for samples received 03/22/07 12:30 with the Chain of Custody document. The samples were received in good condition, at 2.3 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Reviewed by:
Taylor Maligmat

Taylor Maligmat
Project Manager

Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7032218
Project ID: IQC2271

Date Received: 03/22/07 12:30
Date Reported: 04/05/07 09:42

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Laboratory	Matrix	Date Sampled
IQC2271-11	Client		7032218-01	Solid	02/16/07 09:46

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7032218
Project ID: IQC2271

Date Received: 03/22/07 12:30
Date Reported: 04/05/07 09:42

QUALITY CONTROL SECTION

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Weck Laboratories, Inc.
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Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7032218
Project ID: IQC2271

Date Received: 03/22/07 12:30
Date Reported: 04/05/07 09:42

Metals (Non-Aqueous) by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch W7C1010 - EPA 7471A										
Blank (W7C1010-BLK1)				Analyzed: 03/30/07						
Mercury, Total	ND	0.010	mg/kg wet							
LCS (W7C1010-BS1)				Analyzed: 03/30/07						
Mercury, Total	0.0805	0.010	mg/kg wet	0.0820		98.2	80-120			
Matrix Spike (W7C1010-MS1)	**Source: 7032011-02**			Analyzed: 03/30/07						
Mercury, Total	0.110	0.012	mg/kg dry	0.0980	0.011	101	70-130			
Matrix Spike Dup (W7C1010-MSD1)	**Source: 7032011-02**			Analyzed: 03/30/07						
Mercury, Total	0.104	0.012	mg/kg dry	0.0980	0.011	94.9	70-130	5.61	25	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7032218
Project ID: IQC2271

Date Received: 03/22/07 12:30
Date Reported: 04/05/07 09:42

Notes and Definitions

O-09	This sample was received with the EPA recommended holding time expired.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

1QD1788

ADDITIONAL ANALYSIS REQUEST FORM

Today's Date: 4/9/07 Del Mar Analytical Project Manager: MC

Request via: ____ telephone ____ chain of custody form ____ fax transmission X E-mail ____ other

Client: MWH - San Diego Contact: Edmund Sarao

Project: GROUP 8 - FSDF - DOE

Date Sampled: 2/13/07 Date Received: 2/14/07

Status: ____ in progress ____ completed ____ received today ____ received yesterday X on hold ____ other

SAMPLE NUMBER	SAMPLE DESCRIPTION	ANALYSIS REQUESTED	SPECIAL REQUIREMENTS
1QWB1487-11	FSBS0014S01	%Solids, and Mercury	

* Add-on with new WO #*

EC 4-9-07 1325

TURNAROUND STATUS: _____Same Day _____24hr _____48hr _____3days

X 5days _____Standard _____No Rush Charge

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070213_03

Page: 1 of 2

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:	
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:			
Report to:	Lisa Tucker	Project Number:	1891264				
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan				
	Suite 300	PM Phone #:	(626) 568-6897				
	San Diego	Field Contact:					
	CA	Field Contact #:					
	92123	Lab Name:	Test America, Inc.				
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin				
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100				
			Irvine, CA 92606				
		Lab Phone:	(949) 261-1022				

Requested Analyses

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Dioxin by 1613B - Soil	Metals 6010B/6020 Soil Group 8	Metals 7471A Soil Mercury	PCB by SW8082 - Soil	Perchlorate 314 Soil DI-WET	pH by SW9045C - Soil	SVOCs by SW8270C SIM - Soil	TPH by SW8015M - Soil	VOC 8260B Soil Full	METALS 6020 SOIL LEAD					Comments
FSBS0067S01	Soil	2/13/2007	8:40	2	10	10	10	10	10	10	10									
FSBS0067S02	Soil	2/13/2007	9:08	2	H	H	H	H	EH	H	10									Hold all analysis except for pH
FSBS0066D01	Soil	2/13/2007	9:27	2	10	10	10	10	10	10	10									
FSBS0066S01	Soil	2/13/2007	9:27	2	10	10	10	10	10	10	10									
FSBS0066S02	Soil	2/13/2007	9:55	2	H	~~H~~ 10	H	H	EH	H	10									~~Hold all analysis except for pH~~ DIOXIN OFF HOLD
FSBS0065S01	Soil	2/13/2007	10:21	1						10										
FSBS0064S01	Soil	2/13/2007	10:55	1						10										EI
FSBS0064S02	Soil	2/13/2007	11:11	1	10					H					10	3/20/07				~~Hold analysis~~ Add Pb 213
FSBS0064S03	Soil	2/13/2007	11:20	1	10					H					10					~~Hold analysis~~ Add Pb

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/14/2007		2/14/07		2/14/07		2-14-07
Company: MWH	Time: 1000	Company: TAI	Time: 1000	Company: TAI	Time: 1945	Company:	Time: 1945

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

2°C

499

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070213_03

Page: 2 of 2

Customer Information		Project Information		Project Information		
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:		
Report to:	Lisa Tucker	Project Number:	1891264			
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan			
	Suite 300	PM Phone #:	(626) 568-6897			
	San Diego	Field Contact:				
	CA	Field Contact #:				
	92123	Lab Name:	Test America, Inc.			
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin			
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100			
			Irvine, CA 92606			
		Lab Phone:	(949) 261-1022			

Requested Analyses

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract_Hold

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Dioxin by 1613B - Soil	Metals 6010B/6020 Soil Group 8	Metals 7471A Soil Mercury	PCB by SW8082 - Soil	Perchlorate 314 Soil DI-WET	pH by SW9045C - Soil	SVOCs by SW8270C SIM - Soil	TPH by SW8015BM - Soil	VOC 8260B Soil Full						Comments
FSBS0008S01	Soil	2/13/2007	12:06	2	H	~~H~~ 10	H	H	EH	H	10			EMS 3/20/07						~~Hold all analysis except for pH~~ DIOXIN OFF-HOLD
FSBS0014S01	Soil	2/13/2007	12:45	5	~~H~~ 5		H	~~H~~ 5	EH	H	10	EH	EH	H	EMS 4/09/07					~~Hold all analysis except for pH~~ MERCURY OFF-HOLD
FSBS0018S01	Soil	2/13/2007	13:21	1						10										
FSBS0014S02	Soil	2/13/2007	13:30	5	H		H	H	EH	H	10	EH	EH	H						Hold all analysis except for pH
FSBS0017S01	Soil	2/13/2007	13:50	1						10										
FSBS0016S01	Soil	2/13/2007	13:57	1						H										Hold analysis
FSBS0019S01	Soil	2/13/2007	14:23	1						H										Hold analysis
FSBS0020S01	Soil	2/13/2007	14:28	1						H										Hold analysis

2°C

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
	2/14/2007		2/14/07		2/14/07		2-14-07
Company: MWH	Time: 1000	Company: TAI	Time: 1000	Company: TAI	Time: 1945	Company:	Time: 1945

Comments:

Geotracker EDF ☐

Data Validation Package ☑ Level IV

TestAmerica
ANALYTICAL TESTING CORPORATION

LABORATORY REPORT

Prepared For: MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project: SSFL Group 8 - DOE
1891264

Sampled: 02/13/07
Received: 04/09/07
Issued: 04/17/07 16:42

NELAP #01108CA California ELAP#1197 CSDLAC #10256

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 3 pages, are included and are an integral part of this report.
This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

SUBCONTRACTED: Refer to the last page for specific subcontract laboratory information included in this report.

LABORATORY ID	CLIENT ID	MATRIX
IQD0788-01	FSBS0014S01	Soil

Reviewed By:

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION

MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQD0788

Sampled: 02/13/07
Received: 04/09/07

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7D10141 Extracted: 04/10/07											
Blank Analyzed: 04/10/2007 (7D10141-BLK1)											
Percent Solids	ND	0.10	0.10	%							
Duplicate Analyzed: 04/10/2007 (7D10141-DUP1)						**Source: IQD0934-01**					
Percent Solids	4.80	0.10	0.10	%		4.8			0	20	

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQD0788

Sampled: 02/13/07
Received: 04/09/07

METHOD BLANK/QC DATA

Metals (Non-Aqueous) by EPA 6000/7000 Series Methods

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: W7D0360 Extracted: 04/11/07											
Blank Analyzed: 04/12/2007 (W7D0360-BLK1)											
Mercury, Total	ND	0.010	0.00065	mg/kg wet							
LCS Analyzed: 04/12/2007 (W7D0360-BS1)											
Mercury, Total	0.0781	0.010	0.00065	mg/kg wet	0.0781		100	80-120			
Matrix Spike Analyzed: 04/12/2007 (W7D0360-MS1)						**Source: IQD0788-01**					
Mercury, Total	0.249	0.012	0.00075	mg/kg dry	0.0967	0.16	92	70-130			
Matrix Spike Dup Analyzed: 04/12/2007 (W7D0360-MSD1)						**Source: IQD0788-01**					
Mercury, Total	0.247	0.012	0.00075	mg/kg dry	0.0967	0.16	90	70-130	1	25	

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

TestAmerica
ANALYTICAL TESTING CORPORATION

MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQD0788

Sampled: 02/13/07
Received: 04/09/07

DATA QUALIFIERS AND DEFINITIONS

H-1	Sample analysis performed past the method-specified holding time per client's approval.
O-09	This sample was received with the EPA recommended holding time expired.
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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TestAmerica
ANALYTICAL TESTING CORPORATION

MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE 1891264
Report Number: IQD0788

Sampled: 02/13/07
Received: 04/09/07

Certification Summary

TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
EPA 160.3 MOD	Soil	N/A	N/A

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

Subcontracted Laboratories

Weck Laboratories, Inc

14859 E. Clark Avenue - City of Industry, CA 91745

Method Performed: EPA 7471A

Samples: IQD0788-01

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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Del Mar Analytical

2852 Alton Ave., Irvine, CA 92606 (949) 261-1022 FAX (949) 261-1228
1014 E. Cooley Dr., Suite A, Colton, CA 92324 (909) 370-4667 FAX (909) 370-1046
9484 Chesapeake Dr., Suite 805, San Diego, CA 92123 (858) 505-8596 FAX (858) 505-9689
9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

1QD1788

ADDITIONAL ANALYSIS REQUEST FORM

Today's Date: 4/9/07 Del Mar Analytical Project Manager: MC

Request via: ____ telephone ____ chain of custody form ____ fax transmission X E-mail ____ other

Client: MWH - San Diego Contact: Edmund Sarao

Project: GROUP 8 - FSDF - DOE

Date Sampled: 2/13/07 Date Received: 2/14/07

Status: ____ in progress ____ completed ____ received today ____ received yesterday X on hold ____ other

SAMPLE NUMBER	SAMPLE DESCRIPTION	ANALYSIS REQUESTED	SPECIAL REQUIREMENTS
1QWB1487-11	FSBS0014S01	%Solids, and Mercury	

* Add-on with new WO #*

EC 4-9-07 1325

TURNAROUND STATUS: _____Same Day _____24hr _____48hr _____3days

X 5days _____Standard _____No Rush Charge

7041003

SUBCONTRACT ORDER

TestAmerica - Irvine, CA

IQD0788

SENDING LABORATORY:

TestAmerica - Irvine, CA
17461 Derian Avenue. Suite 100
Irvine, CA 92614
Phone: (949) 261-1022
Fax: (949) 260-3297
Project Manager: Michele Chamberlin

RECEIVING LABORATORY:

Weck Laboratories, Inc
14859 E. Clark Avenue
City of Industry, CA 91745
Phone :(626) 336-2139
Fax: (626) 336-2634
Project Location: California
Receipt Temperature: _____ °C Ice: Y / N

Level 4 QC. Boeing EDD, Report to MDL w/ J flags, report in dry weight, 2 week TAT.

Analysis	Due	Expires	Comments
Sample ID: IQD0788-01	**Soil**	Sampled: **02/13/07 12:45**	**add on IQB1487-11, 4/9/07**
Mercury-7471 (dry wt)-OUT	04/17/07 12:00	03/13/07 12:45	J & B flag, sub to Weck, 9 day TAT
Containers Supplied:			
2 oz jar (B)			

4/6/07 0830 — Released By / Date
4/6/07 0730 — Received By / Date
4/6/07 0845 — Released By / Date
4/10/07 8:45 — Received By / Date

3.5

Weck Laboratories, Inc.
Analytical Laboratory Services - Since 1964

14859 E. Clark Ave., Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634
info@wecklabs.com www.wecklabs.com

CERTIFICATE OF ANALYSIS

Client: TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine, CA 92614
Attention: Michele Chamberlin

Phone: (949) 261-1022
Fax: (949) 260-3297

Report Date: 04/17/07 16:06
Received Date: 04/10/07 08:45
Turn Around: 5 days

Work Order #: 7041003

Client Project: IQD0788

NELAP #04229CA ELAP#1132 NEVADA #CA211 HAWAII LACSD #10143

The results in this report apply to the samples analyzed in accordance with the Chain of Custody document. Weck Laboratories, Inc. certifies that the test results meet all NELAC requirements unless noted in the case narrative. This analytical report is confidential and is only intended for the use of Weck Laboratories, Inc. and its client. This report contains the Chain of Custody document, which is an integral part of it, and can only be reproduced in full with the authorization of Weck Laboratories, Inc.

Dear Michele Chamberlin :

Enclosed are the results of analyses for samples received 04/10/07 08:45 with the Chain of Custody document. The samples were received in good condition, at 3.5 °C and on ice. All analysis met the method criteria except as noted below or in the report with data qualifiers.

Case Narrative:
% Solids = 86.2% provided by Client (Michele Chamberlin).

Reviewed by:
Taylor Maligmat

Taylor Maligmat
Project Manager

Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7041003
Project ID: IQD0788

Date Received: 04/10/07 08:45
Date Reported: 04/17/07 16:06

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Sampled by:	Sample Comments	Laboratory	Matrix	Date Sampled
IQD0788-01	client		7041003-01	Solid	02/13/07 12:45

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

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14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7041003
Project ID: IQD0788

Date Received: 04/10/07 08:45
Date Reported: 04/17/07 16:06

QUALITY CONTROL SECTION

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Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7041003
Project ID: IQD0788

Date Received: 04/10/07 08:45
Date Reported: 04/17/07 16:06

Metals (Non-Aqueous) by EPA 6000/7000 Series Methods - Quality Control

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch W7D0360 - EPA 7471A										
Blank (W7D0360-BLK1)				Analyzed: 04/12/07						
Mercury, Total	ND	0.010	mg/kg wet							
LCS (W7D0360-BS1)				Analyzed: 04/12/07						
Mercury, Total	0.0781	0.010	mg/kg wet	0.0781		100	80-120			
Matrix Spike (W7D0360-MS1)	**Source: 7041003-01**			Analyzed: 04/12/07						
Mercury, Total	0.249	0.012	mg/kg dry	0.0967	0.16	92	70-130			
Matrix Spike Dup (W7D0360-MSD1)	**Source: 7041003-01**			Analyzed: 04/12/07						
Mercury, Total	0.247	0.012	mg/kg dry	0.0967	0.16	90	70-130	0.8	25	

Weck Laboratories, Inc
Taylor Maligmat, Project Manager

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

Weck Laboratories, Inc.
14859 E. Clark Ave.
Industry, CA 91745
Phone 626.336.2139 Fax 626.336.2634

TestAmerica, Inc. - Irvine
17461 Derian Ave, Suite 100
Irvine CA, 92614

Report ID: 7041003
Project ID: IQD0788

Date Received: 04/10/07 08:45
Date Reported: 04/17/07 16:06

Notes and Definitions

O-09	This sample was received with the EPA recommended holding time expired.
ND	NOT DETECTED at or above the Reporting Limit. If J-value reported, then NOT DETECTED at or above the Method Detection Limit (MDL)
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference
% Rec	Percent Recovery
Sub	Subcontracted analysis, original report available upon request
MDL	Method Detection Limit
MDA	Minimum Detectable Activity

Any remaining sample(s) will be disposed of one month from the final report date unless other arrangements are made in advance.

An Absence of Total Coliform meets the drinking water standards as established by the California Department of Health Services.

The Reporting Limit (RL) is referenced as the Laboratory's Practical Quantitation Limit (PQL) or the Detection Limit for Reporting Purposes (DLR).

All samples collected by Weck Laboratories have been sampled in accordance to laboratory SOP Number MIS002.

Weck Laboratories, Inc
Taylor Maligmat, Project Manager

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9830 South 51st St., Suite B-120, Phoenix, AZ 85044 (480) 785-0043 FAX (480) 785-0851
2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

ADDITIONAL ANALYSIS REQUEST FORM

Today's Date: 5/16/07 Del Mar Analytical Project Manager: MC

Request via: X telephone X chain of custody form ___ fax transmission X E-mail ___ other

Client: MWH-San Diego/Boeing Contact: Lisa Tucker

Project: SSFL Group8 - DOE / 18912.64

Date Sampled: 2/22/07 Date Received: 2/23/07

Status: X in progress X completed ___ received today ___ received yesterday ___ on hold ___ other

SAMPLE NUMBER	SAMPLE DESCRIPTION	ANALYSIS REQUESTED	SPECIAL REQUIREMENTS
1QB2577-05	FSBS000035001	%solids - post from batch 7C01145, SK 1QB2577-05, Al, Na	
1QB2577-06	FSBS000035002	%solids - okay to run past HT Al, Na	

Add-in to 1QE1350 (FSBS000035001 = -01, FSBS000035002 = -02)

Due 3/21/07

TURNAROUND STATUS: ___Same Day ___24hr ___48hr ___3days

X 5days ___Standard ___No Rush Charge

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070222_00

Page: 1 of 2

Customer Information

Site:	SSFL
Company:	MWH
Report to:	Lisa Tucker
Address:	9444 Farnham Street
	Suite 300
	San Diego
	CA
	92123
Email:	boeingedma@ch2m.com
	Lisa.Tucker@mwhglobal.com

Project Information

Client Name:	DOE
Sampling Event:	Group 8 Data Gaps-Soil
Project Number:	1891264
Project Manager:	Diana Buchanan
PM Phone #:	(626) 568-6897
Field Contact:	
Field Contact #:	
Lab Name:	Test America, Inc.
Lab Contact:	Michele Chamberlin
Lab Address:	17461 Derian Ave, Suite 100
	Irvine, CA 92606
Lab Phone:	(949) 261-1022

Project Information

Collector: Shelby Valenzuela

Contact #:

Boeing PM:

Requested Analyses

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Dioxin by 1613B - Soil	Metals 7471A Soil Mercury	PCB by SW8082 - Soil	Perchlorate 314 Soil DI-WET	pH by SW9045C - Soil	M6Hs 6010B Soil Aluminum	M6Hs 6010B Soil Sodium	Instructions/TAT
FSBS0006S02	Soil	2/22/2007	8:45	3	H		H	EH	H	10			Comments
FSBS0005S02	Soil	2/22/2007	9:45	3	H		H	EH	H	10			Hold all analysis except for pH. S(2), P(1)
FSBS0002S01	Soil	2/22/2007	10:40	2		10				10			Hold all analysis except for pH. S(2), P(1)
FSBS0010S01	Soil	2/22/2007	11:30	1					10				
FSBS0003S01	Soil	2/22/2007	11:35	1	10	10	10			10	5	5	
FSBS0003S02	Soil	2/22/2007	11:39	1	H		H	EH		10	5	5	Add % Solids
FSBS0008S01	Soil	2/22/2007	11:52	1					10				Hold all analysis except for pH Add Al, Na, % solids
FSBS0008S02	Soil	2/22/2007	12:02	1					10				
FSBS0002S02	Soil	2/22/2007	12:20	1		H				H			Hold all analysis.

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
Ed Shelver	2/23/2007		2/23/07				
Company: MWH	Time: 1255	Company: TAI	Time: 1255	Company:	Time:	Company:	Time:

Comments: 2.5/2" MAY, 14, 2007 Add NUMBERS FSBS0003501 - % Solids, Al, Na FSBS0003502 - % Solids, Al, Na

Geotracker EDF ☐

Data Validation Package ☑ Level IV

Ed. 05/14/07 / Added 05/16/07 - Al, Na on FSBS0003501

BOEING

CHAIN OF CUSTODY RECORD

COC #: MWHSV20070222_00

Page: 1 of 2

Customer Information		Project Information		Project Information			
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela	Boeing PM:	
Company:	MWH	Sampling Event:	Group 8 Data Gaps Soil	Contact #:			
Report to:	Lisa Tucker	Project Number:	1891264				
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan				
	Suite 300	PM Phone #:	(626) 568-6697				
	San Diego	Field Contact:					
	CA	Field Contact #:					
	92123	Lab Name:	Test America, Inc.				
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin				
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100				
			Irvine, CA 92606				
		Lab Phone:	(949) 261-1022				

Requested Analyses

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Dioxin by 1613B - Soil	Metals 7471A Soil Mercury	PCB by SW8082 - Soil	Perchlorate 314 Soil DI-INET	pH by SW9045C - Soil	Comments
FSBS0006S02	Soil	2/22/2007	8:46	3	H		H	EH	H	10	Hold all analysis except for pH. S(2), P(1)
FSBS0005S02	Soil	2/22/2007	9:45	3	H		H	EH	H	10	Hold all analysis except for pH. S(2), P(1)
FSBS0002S01	Soil	2/22/2007	10:40	2		10				H	
FSBS0010S01	Soil	2/22/2007	11:30	1					10		
FSBS0003S01	Soil	2/22/2007	11:35	1	10		10	10		10	
FSBS0003S02	Soil	2/22/2007	11:39	1	H		H	EH		10	
FSBS0008S01	Soil	2/22/2007	11:52	1					10		Hold all analysis except for pH
FSBS0008S02	Soil	2/22/2007	12:02	1					10		
FSBS0002S02	Soil	2/22/2007	12:20	1		H				H	Hold all analysis.

Sue 2/23/07

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
C. Soriano	2/23/2007		2/23/07				
Company: MWH	Time: 1255	Company: TAI	Time: 1255	Company:	Time:	Company:	Time:

Comments: 2.5/2°

Geotracker EDF ☐

Data Validation Package ☑ Level IV

Instructions/TAT

Legend
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract. Hold

CHAIN OF CUSTODY RECORD

COC #: MWHSv20070222_00

Page: 2 of 2

Customer Information		Project Information		Project Information	
Site:	SSFL	Client Name:	DOE	Collector:	Shelby Valenzuela
Company:	MWH	Sampling Event:	Group 8 Data Gaps-Soil	Contact #:	
Report to:	Lisa Tucker	~~Project Number:~~	~~1891264~~	Boeing PM:	
Address:	9444 Farnham Street	Project Manager:	Diana Buchanan		
	Suite 300	PM Phone #:	(626) 568-6897		
	San Diego	Field Contact:			
	CA	Field Contact #:			
	92123	Lab Name:	Test America, Inc.		
Email:	boeingedms@ch2m.com	Lab Contact:	Michele Chamberlin		
	Lisa.Tucker@mwhglobal.com	Lab Address:	17461 Derian Ave, Suite 100		
			Irvine, CA 92606		
		Lab Phone:	(949) 261-1022		

Requested Analyses

Sample Name	Matrix	Date	Time	No. of Containers	% Solids - Soil	Dioxin by 1613B - Soil	Metals 7471A Soil Mercury	PCB by SW8082 - Soil	Perchlorate 314 Soil DI-WET	pH by SW9045C - Soil	Instructions/TAT / Comments
FSBS0009S01	Soil	2/22/2007	12:37	1					10		
FSBS0009S02	Soil	2/22/2007	12:43	1					10		

Instructions/TAT

Legend:
Numerical values for analyses equate to turn around time in days

H - Hold
EH - Extract Hold

HE 2-23-07
1600

1. Relinquished by:	Date:	2. Received by:	Date:	3. Relinquished by:	Date:	4. Received by:	Date:
[signature]	2/23/2007	[signature]	2/23/07				
Company: MWH	Time: 1255	Company: TAI	Time: 1255	Company:	Time:	Company:	Time:

Comments: 2.5/2

Geotracker EDF ☐

Data Validation Package ☑ Level IV

TestAmerica
ANALYTICAL TESTING CORPORATION

17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

LABORATORY REPORT

Prepared For: MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project: SSFL Group 8 - DOE
1891264

Sampled: 02/22/07
Received: 05/11/07
Issued: 05/21/07 15:15

NELAP #01108CA California ELAP#1197 CSDLAC #10256

The results listed within this Laboratory Report pertain only to the samples tested in the laboratory. The analyses contained in this report were performed in accordance with the applicable certifications as noted. All soil samples are reported on a wet weight basis unless otherwise noted in the report. This Laboratory Report is confidential and is intended for the sole use of TestAmerica and its client. This report shall not be reproduced, except in full, without written permission from TestAmerica. The Chain(s) of Custody, 4 pages, are included and are an integral part of this report.
This entire report was reviewed and approved for release.

SAMPLE CROSS REFERENCE

LABORATORY ID	CLIENT ID	MATRIX
IQE1350-01	FSBS0003S01	Soil
IQE1350-02	FSBS0003S02	Soil

Reviewed By:

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQE1350

Sampled: 02/22/07
Received: 05/11/07

METHOD BLANK/QC DATA

METALS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7E18136 Extracted: 05/18/07											
Blank Analyzed: 05/19/2007 (7E18136-BLK1)											
Aluminum	ND	10	5.0	mg/kg wet							
Sodium	29.5	50	24	mg/kg wet							*J*
LCS Analyzed: 05/19/2007 (7E18136-BS1)											
Aluminum	51.6	10	5.0	mg/kg wet	50.0		103	80-120			
Sodium	517	50	24	mg/kg wet	500		103	80-120			
Matrix Spike Analyzed: 05/19/2007 (7E18136-MS1)						**Source: IQE1603-03**					
Aluminum	20100	20	10	mg/kg wet	50.0	13000	14200	75-125			*MHA*
Sodium	1730	100	48	mg/kg wet	500	640	218	75-125			*M1*
Matrix Spike Dup Analyzed: 05/19/2007 (7E18136-MSD1)						**Source: IQE1603-03**					
Aluminum	18200	20	10	mg/kg wet	50.0	13000	10400	75-125	10	20	*MHA*
Sodium	1320	100	48	mg/kg wet	500	640	136	75-125	27	20	*M1*

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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ANALYTICAL TESTING CORPORATION
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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQE1350

Sampled: 02/22/07
Received: 05/11/07

METHOD BLANK/QC DATA

INORGANICS

Analyte	Result	Reporting Limit	MDL	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Data Qualifiers
Batch: 7C01145 Extracted: 03/01/07											
Blank Analyzed: 03/02/2007 (7C01145-BLK1)											
Percent Solids	ND	0.10	N/A	%							
Duplicate Analyzed: 03/02/2007 (7C01145-DUP1)						**Source: IQC0100-01**					
Percent Solids	4.20	0.10	N/A	%		4.2			0	20	
Batch: 7E16155 Extracted: 05/16/07											
Blank Analyzed: 05/16/2007 (7E16155-BLK1)											
Percent Solids	ND	0.10	N/A	%							
Duplicate Analyzed: 05/16/2007 (7E16155-DUP1)						**Source: IQE1106-03**					
Percent Solids	6.20	0.10	N/A	%		7.5			19	20	

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

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MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQE1350

Sampled: 02/22/07
Received: 05/11/07

DATA QUALIFIERS AND DEFINITIONS

B	Analyte was detected in the associated Method Blank.
H-1	Sample analysis performed past the method-specified holding time per client's approval.
J	Estimated value. Analyte detected at a level less than the Reporting Limit (RL) and greater than or equal to the Method Detection Limit (MDL). The user of this data should be aware that this data is of limited reliability.
M1	The MS and/or MSD were above the acceptance limits due to sample matrix interference. See Blank Spike (LCS).
MHA	Due to high levels of analyte in the sample, the MS/MSD calculation does not provide useful spike recovery information. See Blank Spike (LCS).
ND	Analyte NOT DETECTED at or above the reporting limit or MDL, if MDL is specified.
RPD	Relative Percent Difference

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

TestAmerica
ANALYTICAL TESTING CORPORATION
17461 Derian Avenue. Suite 100, Irvine, CA 92614 (949) 261-1022 Fax:(949) 260-3297

MWH-San Diego/Boeing
9444 Farnham Street, Suite 300
San Diego, CA 92123
Attention: Lisa J. Tucker

Project ID: SSFL Group 8 - DOE
1891264
Report Number: IQE1350

Sampled: 02/22/07
Received: 05/11/07

Certification Summary

TestAmerica - Irvine, CA

Method	Matrix	Nelac	California
EPA 160.3 MOD	Soil	N/A	N/A
EPA 6010B	Soil	X	X

Nevada and NELAP provide analyte specific accreditations. Analyte specific information for TestAmerica may be obtained by contacting the laboratory or visiting our website at www.testamericainc.com

TestAmerica - Irvine, CA
Michele Chamberlin
Project Manager

The results pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from TestAmerica.

Del Mar Analytical

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2520 E. Sunset Rd. #3, Las Vegas, NV 89120 (702) 798-3620 FAX (702) 798-3621

ADDITIONAL ANALYSIS REQUEST FORM

Today's Date: 5/16/07 Del Mar Analytical Project Manager: MC

Request via: X telephone X chain of custody form ___ fax transmission X E-mail ___ other

Client: MWH-San Diego/Boeing Contact: Lisa Tucker

Project: SSFL Group8 - DOE / 18912.64

Date Sampled: 2/22/07 Date Received: 2/23/07

Status: X in progress X completed ___ received today ___ received yesterday ___ on hold ___ other

SAMPLE NUMBER	SAMPLE DESCRIPTION	ANALYSIS REQUESTED	SPECIAL REQUIREMENTS
1QB2577-05	FSBS000035001	%solids - post from batch 7C01145, SK 1QB2577-05, Al, Na	
1QB2577-06	FSBS000035002	%solids - okay to run past HT Al, Na	

Add-in to 1QE1350 (FSBS000035001 = -01, FSBS000035002 = -02)

Due 3/21/07

TURNAROUND STATUS: ___Same Day ___24hr ___48hr ___3days

X 5days ___Standard ___No Rush Charge